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# DRILL BOOK

FOR THE  
HOSPITAL CORPS  
UNITED STATES NAVY



1942

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# DRILL BOOK

FOR THE  
HOSPITAL CORPS  
UNITED STATES NAVY



PUBLISHED BY

U.S. THE BUREAU OF MEDICINE AND SURGERY

UNDER THE AUTHORITY OF

THE SECRETARY OF THE NAVY



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DEPARTMENT OF THE NAVY,  
*Washington, D. C., July 1, 1942.*

The Drill Book for the Hospital Corps, United States Navy, 1942, revised and corrected under the supervision of the Bureau of Medicine and Surgery, Navy Department, Washington, D. C., is issued for the instruction and guidance of the Hospital Corps and for the information of the Navy.

The instructions contained herein supersede all others of a similar nature and will be strictly observed.

FRANK KNOX,  
*Secretary of the Navy.*



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## FOREWORD

In the preparation of this revised edition of the Drill Book for the Hospital Corps, U. S. Navy, frequent reference has been made to U. S. Navy Regulations, the Landing Force Manual, U. S. Navy, 1938, from which figures 1, 2, 3, 4, 99, and 100 are reproduced, the 1941 edition of U. S. Army Medical Field Manual No. FM 8-35, Transportation of the Sick and Wounded, from which figures 5 and 6 are reproduced, and the Manual of the Medical Department, U. S. Navy, 1938.

The purpose of the instructions contained in this book is to enable members of the Hospital Corps, U. S. Navy, to become familiar with their equipment, to develop in them that military bearing and prompt obedience to command which is essential to any part of a military organization, and to so train them that they can instruct others in methods of transporting the sick and injured on board ship, in the field, or elsewhere.

The assistance rendered by the U. S. Navy Hospital Corps Schools at Portsmouth, Va., and San Diego, Calif., and by the Medical Department, Second Marine Division, Fleet Marine Force, in the revision is acknowledged.

ROSS T McINTIRE.

*Surgeon General, U. S. Navy.*

## ABBREVIATIONS

Div., D_____	Division.
D-1_____	Division Adjutant.
D-2_____	Division Intelligence.
D-3_____	Division Operations.
D-4_____	Division Supplies.
Brig., B_____	Brigade.
B-1, B-2, B-3, B-4_____	Brigade Offices.
Reg., R_____	Regiment.
R-1, R-2, R-3, R-4_____	Regimental Offices.
Bn_____	Battalion.
Bn-1, Bn-2, Bn-3, Bn-4_____	Battalion Offices.
Co_____	Company.
CO_____	Commanding Officer.
CPO_____	Chief Petty Officer.
PO1c_____	Petty Officer First Class.
Pl_____	Platoon.
Sq_____	Squadron or Squad.
Hdqtrs_____	Headquarters.
Gr_____	Group.
A-2-Med_____	Company A, 2d Medical Battalion.
3-M-2_____	Company M, 3d Battalion, 2d Marines.



# CHAPTER I

## GLOSSARY AND GENERAL PRINCIPLES

### SECTION I.—GLOSSARY

**ALIGNMENT.**—(1) A straight line upon which several elements are formed, or are to be formed.

(2) The dressing of several elements upon a straight line.

**ATTACHED.**—Temporarily assigned without becoming an organic part of.

**ATTACHED UNIT.**—A unit placed temporarily under the orders of a commander other than its regular commander.

**BASE.**—The element on which a movement or formation is regulated.

**BEATEN ZONE.**—(1) The intersection of the cone of dispersion or sheaf of fire with the surface on which the target is located.

(2) The space on the ground in which bullets strike.

**CENTER.**—The middle point or element of a command.

**COACH AND PUPIL METHOD OF INSTRUCTION.**—A method by which men work in pairs, one as instructor, called the coach; the other, under instruc-

tion, called the pupil. Each in turn acts as coach and pupil.

**COLUMN.**—A formation in which the elements are placed one behind another.

**DEFILADE.**—(1) Concealment from enemy observation or protection from his fire by intervening obstacles, such as hills or ridges.

(2) The vertical distance from the defiladed position to the line of sighting or trajectory which just clears the covering mask.

(3) To protect by defilade.

**DEMONSTRATION.**—An attack delivered on a front where a decision is not sought, made with the object of deceiving the enemy as to the point of decisive action.

**DEPLOY.**—To extend the front; in general, to change from column to line, or from close order to extended order.

**DEPTH.**—(1) The space from head to rear of any formation or of a position, including the leading and rear elements.

(2) The depth of a man is assumed to be 12 inches.

**DISTANCE.**—(1) Space between elements in the direction of depth.

(2) Distance is measured with respect to dismounted men, from the back of the man in front to the breast of the man in the rear, or, in case of

vehicles, from the rear part of the vehicle in front to the front part of the vehicle or breasts of leading men on drags (as the case may be) in rear.

(3) Distance between troops in formation is measured from the rear rank of the unit in front to the front rank of the unit in rear.

(4) Platoon commanders, guides, and others whose position in a formation is at 40 inches distance from a rank are themselves considered a rank. Otherwise the commander of any unit and those accompanying him are not considered in measuring distance between units.

(5) The colors and guard are not considered in measuring distance between subdivisions of a unit with which they are posted.

(6) The distance between ranks of dismounted men is 40 inches in both line and column.

**DOUBLE TIME.**—A cadence of 180 steps to the minute, the length of the step being 36 inches.

**ECHELON.**—(1) In battle formations, the different fractions of a command in the direction of depth, to each of which a principle combat mission is assigned; e. g., the assault echelon, support echelon, and reserve echelon.

(2) The various subdivisions of a headquarters, as forward echelon (the command group), and rear echelon (administration and supply group).

(3) A formation where the elements are arranged in parallel lines, but displaced in depth to the right or left. For example, when a platoon is in the triangular formation with the leading squad in front of the center of the interval between the two rear squads, rear squads are echeloned to the right and left.

**ELEMENT.**—One of the component subdivisions of a command, such as a file, squad, platoon, company or any unit forming part of a larger unit.

**FIELD MUSIC.**—The musicians of an organization other than the band; normally consisting of buglers (trumpeters) and drummers.

**FLANK.**—(1) The right or left of a command in line or column.

(2) The element on the right or left of the line.

(3) Either side of a force or of a position.

**FORMATION.**—(1) The arrangement of the elements of a command.

(2) The placing of all fractions in their order in line, in column, or for battle.

**FRONT.**—(1) The lateral space occupied by an element or unit measured from one flank to the opposite flank. The front of a man is assumed to be 22 inches.

(2) When a combat situation does not exist or is not assumed, the front is the direction towards which the command is faced.

(3) The direction of the enemy.

FRONTAGE.—The extent of front occupied or covered by a unit in any drill or battle formation.

GROUP.—A number of men formed for a specific purpose.

GUIDE.—(1) An individual upon whom an organization or element regulates its march or alignment.

(2) To regulate upon in marching.

HEAD.—The leading element of a column in whatever direction the column may be facing or moving.

INTERVAL.—(1) A space between military units or elements on the same line.

(2) Interval is measured, with respect to dismounted men, from the shoulder or elbow; vehicles from the hub of the wheel or the track.

(3) Between troops in formation, interval is measured from the left flank of the unit on the right flank of the unit on the left.

(4) The normal interval is one arm's length; the close interval is 4 inches.

(5) The commander of any unit, or element thereof, and those accompanying him are not considered in measuring interval between units.

(6) The colors and guard are not considered in measuring interval between elements of a unit with which they are posted.

**LEFT.**—The left extremity or element of a body of troops.

**LINE.**—A formation in which the different elements are abreast of each other.

**LITTER.**—Either the Army or Navy litter with bearers, or the men assigned to it without their litter.

**MASS FORMATION.**—The formation of a company or any larger unit in which the squads in column are abreast of one another.

**ORDER, CLOSE.**—A drill formation in which the elements are arranged in line or column with normal distances and normal or close intervals.

**ORDER, EXTENDED.**—A formation in which the individuals or units are separated by intervals or distances, or both, greater than those in close order.

**PACE.**—A step of 30 inches; length of the full step in quick time.

**POINT OF REST.**—(1) The point at which a formation begins.

(2) Specifically, the point toward which units are aligned in successive movements.

**QUICK TIME.**—(1) A cadence of 120 steps to the minute, the length of the step being 30 inches.

(2) The normal cadence for drills and ceremonies.

**RANK.**—A line of men placed side by side.

**RIGHT.**—The right extremity or element of a body of troops.



**STEP.**—The distance measured from heel to heel between the feet of a man walking. The half step and back step are 15 inches. The right step and left step are 12 inches. The steps in quick and double time are 30 and 36 inches, respectively.

**CHIEF PETTY OFFICER.**—A petty officer (normally a chief petty officer or petty officer, first class), to perform the duties of the first sergeant of a company.

**FIRST PETTY OFFICER.**—A petty officer (normally a petty officer, first or second class), to perform the duties of a sergeant.

**SECOND PETTY OFFICER.**—A petty officer (normally a petty officer, second or third class), to perform the duties of a corporal.

## SECTION 2—GENERAL PRINCIPLES

1-1. **SCOPE.**—The drills described herein are designed for general use and may be adapted to any type of unit; therefore some of the explanation is of a general nature which gives sufficient latitude for adaptation to specific units. Interpretation should be based on these general provisions, and all should learn to use this book as a guide to a common-sense solution of minor points which are not specifically covered in the text. Much discussion over trifles or failure to make appropriate adaptation indicates a failure to grasp the spirit of the

regulations. Higher commanders should encourage subordinates to make minor adjustments without calling on higher authority for interpretation. Necessary adaptation should be simple and should not complicate the drill. Stress should be placed on precision in execution and in marching in step with proper alinement. Nothing inspires the military spirit more than to see or to be a part of a compact group moving in unison, confidently, and to a measured cadence. Complicated procedure destroys this effect.

1-2. PURPOSES OF DRILL.—The purposes of drill are to: (a) Enable a commander to move his command from one place to another in an orderly manner and to provide simple formations from which dispositions may readily be assumed; (b) Aid in disciplinary training by instilling habits of precision and response to the leader's orders; (c) Provide a means, through ceremonies, of enhancing the morale, developing the spirit of cohesion, and giving interesting spectacles to the public; and (d) Give junior officers and noncommissioned officers practice in commanding bodies of men.

1-3. PRECISION IN DRILL.—In order best to accomplish its mission, drill should be frequent and of short duration. Smartness and precision should be required in the execution of every detail.

1-4. **USE OF RIGHT AND LEFT.**—The explanation of a movement in the text that may be executed towards either flank is generally given for execution towards but one flank. To adapt such a description to execution of the movement towards the opposite flank, it is necessary only to substitute the word “left” for “right” or “right” for “left” as the case requires.

1-5. **DOUBLE TIME.**—(a) Any movement not especially excepted may be executed in double time. (b) If a unit is at a halt or marching in quick time, and it is desired that a movement be executed in double time, the command **DOUBLE TIME** precedes the command of execution.

1-6. **TO REVOKE A COMMAND.**—To revoke a command or to begin anew a movement improperly begun from a halt, the command **AS YOU WERE** is given, at which the movement ceases and the former position is resumed.

1-7. **GENERAL RULES FOR THE GUIDE.**—(a) Unless otherwise announced the guide of a platoon or subdivision of a company in column or line is right. (b) To march with the guide other than as prescribed before, or to change the guide, the command **GUIDE RIGHT (LEFT, OR CENTER)** is given. The leading man in each file is responsible for the interval. The guide is responsible for the direction and cadence of march. (c) The announce-

ment of the guide, when made in connection with a movement, follows the command of execution for the movement. (d) In column of subdivisions, the guide of the leading subdivision is charged with the step and direction; the guides in the rear preserve the trace, step, and distance.

1-8. PARTIAL CHANGES OF DIRECTION.—(a) Changes of direction of 45 degrees may be executed by interpolating in the preparatory command the word "half," as COLUMN HALF RIGHT (LEFT). (b) Slight changes in direction are effected by the command INCLINE TO THE RIGHT (LEFT). The guide or guiding element moves in the indicated direction and the remainder of the command conforms.

1-9. NUMBERING OF UNITS.—Squads, sections, and platoons are numbered consecutively from right to left and from front to rear throughout the company and thereafter retain their permanent designation.

1-10. POSTS OF OFFICERS, PETTY OFFICERS, GUIDONS, AND SPECIAL UNITS.—(a) The posts of officers, petty officers, guidons, and special units in the various formations of infantry units are explained in the text. (b) When changes of formation involve changes of posts, the new post is taken by the most direct route, except where otherwise prescribed, as soon as practicable after the command of execution

for the movement; officers and petty officers who have prescribed duties in connection with the movement ordered take their new posts when such duties are completed. In executing any movement or facing in aligning units, or in moving from one post to another, officers and petty officers maintain a military bearing and move with precision. (c) When acting as instructors, officers and petty officers go wherever their presence is necessary. They rectify mistakes and insure steadiness and promptness in the ranks. (d) In subsequent movements after the initial formation, guidons and special units maintain their relative positions with respect to the flank or end of the command on which they were originally posted.

(e) In all formations and movements, a petty officer commanding a section, platoon, or company takes the same post as prescribed for an officer in command.

1-11. COMMANDS.—(a) Commands are employed in close-order drill at attention.

(b) In this book a command is the direction of the commander expressed orally and in prescribed phraseology.

(c) Where it is not mentioned who gives the prescribed commands they will be given by the commander of the unit.

(d) There are two kinds of commands:

(1) The preparatory command, such as **FORWARD**, which indicates the movement that is to be executed.

(2) The command of execution, such as **MARCH**, **HALT**, etc., which causes the execution.

(e) Preparatory commands are distinguished in this book by small capitals and those of execution by large capitals.

(f) The preparatory command is given at such interval of time before the command of execution as to admit of proper understanding and to permit the giving of necessary commands by subordinate leaders; the command of execution is given at the instant the movement is to commence.

(g) The tone of the command should be animated, distinct, and of a loudness proportioned to the number of men for whom it is intended. Indifference in giving commands must be avoided, as this leads to laxity in execution. Commands must be given with spirit.

(h) When giving commands to troops, the commander faces them. When the section or platoon in close-order drill or in ceremonies is part of a larger unit, the leader turns his head toward the unit to give commands but does not face about.

(i) Officers and men fix their attention at the first word of command.



(j) If all men in the unit are to execute the same movement simultaneously, the subordinate leaders do not repeat commands; otherwise they repeat the command or give the proper new command for the movement of their own unit.

(k) If at a halt, the commands for movements involving marching, such as: (1.) COLUMN RIGHT, (2.) MARCH, are not prefaced by the command FORWARD.

1-12. INSTRUCTION BY THE NUMBERS.—All movements for the purpose of instruction may be divided into motions and executed in detail. The command of execution determines the prompt execution of the first motion. The other motions, depending on the number, are executed at the commands TWO, THREE, FOUR. To execute the movement in detail the instructor first cautions, "BY THE NUMBERS." All movements are then executed in detail, one motion for each count until he cautions, "WITHOUT THE NUMBERS."



## CHAPTER II

### MILITARY COURTESIES

2-1. GENERAL.—Courtesy, as generally understood, implies polite, respectful, and considerate behavior towards others and is as necessary in military life as in civil life.

Military courtesy not only includes most of the conventional courtesies recognized in civil life but also prescribes a code of behavior and certain rules of conduct that are distinctive of and peculiar to the armed services, outside of which they are not ordinarily practiced. In general, juniors give the same precedence to and show the same deference towards their seniors that any courteous person does to his elders.

The formalities comprising military courtesy are observed by superiors as well as by subordinates and on all occasions should be rendered promptly and smartly, for a slovenly and half-hearted execution of them is in itself discourteous.

Military courtesy is indispensable to discipline and nothing gives a better indication of the state of discipline in an organization than the manner in which the formalities of military courtesy are observed and practiced.

2-2. SALUTES.—(a) The salute is a form of military courtesy that has been strictly and conscientiously practiced from time immemorial by men of arms of all nations. By the salute the individual personally pays his respects to the national flag and to the uniform and authority of his superiors, and acknowledges the salutes of his juniors. When a salute is rendered to a senior it signifies not only respect for the uniform worn and the office held but a friendly greeting; in no way is it to be considered a sign of humility or an admission of individual inferiority. When a salute is rendered to the National Flag or to the National Anthem of the United States of America it implies loyalty to that nation and when rendered to the flag or national anthem of a foreign country during an exchange of honors it signifies an act of friendship.

(b) How and when to render a proper salute is one of the first things a man in the service should learn.

2-3. HOW TO RENDER THE SALUTE.—This is explained in paragraph 4-7.

2-4. WHOM TO SALUTE.—(a) Salutes shall be exchanged (1) between officers and (2) between officers and enlisted men on every occasion of their meeting, passing near, or being addressed except as hereafter indicated.

(b) Salutes and other marks of respect shall be extended to officers of the Navy, Army, Marine Corps, and Coast Guard, to foreign military and naval officers whose governments are formally recognized by the government of the United States, and, when on active duty, to officers of the Naval, Army, and Marine Corps Reserve, and the National Guard.

2-5. WHEN TO SALUTE.—The occasions which call for a salute are many and are contained in Chapter 5 of U. S. Navy Regulations, but a few simple rules will suffice for most occasions.

RULES FOR SALUTING.—(1) Enlisted men salute the commanding officer and all officers senior to him on every occasion of meeting, passing near, or being addressed by them except when in military formation or uncovered, in which cases, they shall stand at Attention.

(2) On board ship enlisted men, if covered and not in military formation, salute all officers junior to the commanding officer on their first daily meeting, passing near, or being addressed by them. At other times they clear gangway if necessary and stand at Attention, facing the officer until he passes.

(3) Enlisted men shall salute the executive officer or any other officer making an official inspection.

(4) All salutes in passing or approaching are begun at six paces or at six paces from the nearest point of passing, the enlisted man saluting first.

(5) Officers in civilian dress are saluted in the same manner as when in uniform, if recognized.

(6) Enlisted men who are passengers in the stern sheets of a boat and the coxswain shall rise and salute when an officer enters or leaves their boats.

(7) Men seated in a boat in which there is no petty officer or acting petty officer in charge, lying at a gangway, landing, or boom shall rise and salute all officers passing near; when an officer, petty officer or acting petty officer is in charge of the boat he alone shall render the salute.

(8) When addressing or being addressed by an officer, the enlisted man salutes at the beginning and the close of the conversation.

(9) Civilian government officials as well as civilian representatives of foreign governments when visiting a naval command in an official capacity are accorded the same individual courtesies as are extended to officers.

(10) When in doubt as to the necessity of rendering a salute, the best rule is to render the salute. It is much better to render an unnecessary salute than to omit one that should have been executed.

2-6. WHEN THE SALUTE IS OMITTED.—(a) Men at work, except when addressed by an officer or called to attention, shall not be required to salute.



(b) A man in formation shall not salute, but if addressed by an officer he shall stand at Attention.

(c) Men seated at work, at games, or at mess are not required to rise when an officer other than a flag officer or the captain of a ship passes, unless they be called to Attention or when it becomes necessary to clear a gangway.

(d) Salutes usually are not required when both hands are occupied in carrying articles or otherwise so occupied as to make saluting impracticable.

(e) Men uncovered (wearing no headdress) do not salute.

(f) Men seated at oars in a pulling boat are not required to rise or salute.

2-7. COURTESIES OTHER THAN THE SALUTE.—(a) Assuming the position of Attention is a military courtesy frequently called for when the salute is not required. The position of Attention is explained in paragraph 4-3.

(b) Attention is executed whenever the command ATTENTION is given by anyone authorized to give such an order.

(c) When enlisted men are in a room and an officer enters, the first to perceive him calls ATTENTION, whereupon all rise, uncover (unless under arms) and stand at Attention until the officer leaves or directs otherwise.

(d) In general, the position of Attention is assumed in lieu of the salute in all circumstances calling for a salute but in which the execution of the salute is impracticable, as, for example, when uncovered or when the hands are otherwise engaged.

(e) When receiving an order from an officer, a man should reply, "Aye, aye, sir." The expressions "Very good, sir" or "Very well, sir" should never be used.

(f) Enlisted men, not carrying arms, uncover when entering officers' quarters either afloat or ashore.

**2-8. JUNIORS GIVE WAY TO SENIORS.**—(a) At landings and gangways juniors shall give way to seniors, and at all times juniors shall show deference to their seniors by abstaining from crossing the bows of their boats, crowding them, or ignoring their presence. The same rules shall apply in relations ashore, whether in vehicles or on foot.

(b) Except when excused by proper authority, boats shall always haul clear of shore landings and ship's gangways while waiting, and crews shall not leave their boats.

(c) In accompanying other officers, juniors shall walk or ride on the left of their seniors, unless there be special reason for the contrary.

(d) Unless otherwise directed by the senior officer present, officers will enter boats, automobiles, or other vehicles in the inverse order of rank and will

leave them in order of rank. The seniors will be accorded the most desirable seats.

2-9. NATIONAL ANTHEM.—(a) The composition consisting of the words and music known as “The Star Spangled Banner” is designated the National Anthem of the United States of America.

(b) Whenever the national anthem is played all officers and enlisted men of the Navy shall stand at Attention facing the music unless at colors, when they shall face the ensign. In boats, only the boat officer, or in his absence the coxswain, shall stand and salute; other members of the crew and passengers who are already standing shall stand at Attention, all others remain seated. If in uniform, covered, they shall salute at the first note of the anthem, retaining the position of salute until the last note of the anthem. Men in ranks shall salute only by command. If not in uniform and covered, they shall uncover at the first note of the anthem, holding the headdress over the heart and so remain until the last note except that in inclement weather the headdress may be raised slightly and held above the head.

(c) When played by a naval band, the national anthem shall be played through without the repetition of any part not required to be repeated to make it complete.

(d) The same marks of respect prescribed for observance during the playing of the National Anthem of the United States shall be shown toward the national anthem of any other country, formally recognized by the government of the United States.

2-10. SALUTES TO COLORS AND QUARTER-DECK.—All officers and men, when reaching the quarter-deck either from a boat, from a gangway, from the shore, or from another part of the ship, shall salute the national ensign. In the event that the ensign is not hoisted this salute shall be tendered only when leaving or coming on board ship. In making this salute, which shall be entirely distinct from the salute to the officer of the deck, the person making it shall stop at the top of the gangway, or upon arriving upon the quarter-deck, face the colors, and render the salute, after which the officer of the deck shall be saluted. In leaving the quarter-deck, the same salutes shall be rendered in inverse order. The officer of the deck shall return both salutes in each case, and shall require that they be properly made.

(b) The commanding officer shall clearly define the limits of the quarter-deck; this area shall embrace so much of the main or other appropriate deck as may be necessary for the proper conduct of official and ceremonial functions. When the

quarter-deck so designated is forward and at a considerable distance from the colors, the salute to the colors prescribed in the preceding paragraph will not be rendered by officers and men except when leaving or coming on board the ship.

(c) The starboard gangways to the quarter-deck shall be used by commissioned officers, warrant officers, and their visitors; the port gangways shall be used by all other persons. If the construction of the ship or other circumstances make a change in this rule expedient, the change may be made at the discretion of the commanding officer.

(d) The side shall be sufficiently lighted to enable persons to go on board or take their departure without inconvenience.

2-11. THE NATIONAL ENSIGN.—(a) The flag known as “The Stars and Stripes” is also known as the National Ensign and the National Colors of the United States of America.

(b) When passing or being passed by the uncased colors, honors are rendered in the same manner as when the national anthem is being played.

(c) The word “colors” also implies the regimental or battalion colors when accompanied by the national ensign.

(d) No ship of the Navy shall dip her ensign unless in return for such compliment. Of the colors

carried by a naval force on shore only the battalion or regimental colors shall be dipped in rendering or acknowledging a salute.

2-12. MILITARY FUNERAL.—(a) At a military funeral, all persons in the naval service attending in an individual capacity will stand at Attention, uncover, and hold the headdress over the heart at any time when the casket is being moved by the casket bearers and during the services at the grave, including the firing of the volley and the sounding of taps. During inclement weather if in civilian clothes the headdress may be raised slightly above the head. If in uniform during inclement weather, they may remain covered and execute the hand salute when the casket is being moved by the casket bearers and during the firing of the volley and the sounding of taps.

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## CHAPTER III

### PHYSICAL DRILL

#### SECTION 1.—FORMATION

3-1. (a) The formation given in this section is recommended for physical drill, it being the simplest and least complicated, and more compact than any other. The unit to be drilled is formed in column of threes or fours at close interval facing the instructor. In restricted spaces, as on board ship, it may be formed in column of twos.

(b) At the command: 1. **EXTEND TO THE LEFT**, 2. **MARCH**, the right squad (file) stands fast, with arms extended sideways. The second, third, and fourth squads (files) from the right turn to the left and, at double time, run forward to the original left, the second squad (file) taking two paces, the third taking four paces, and the fourth taking six paces. All face to the front after taking the required distance, with arms extended sideways, the distance between the fingertips to be about 12 inches.

(c) At the command: 1. **ARMS**, 2. **DOWN**, the arms are lowered smartly to the sides. The men within each file are now covering in column at 40 inches distance and are too close to carry out the exercise.

(d) At the command: 1. EVEN NUMBERS TO THE RIGHT (LEFT), 2. MOVE, each even-numbered man stride-jumps to the right, squarely in the middle of the interval. In doing this he swings his right leg sideways, jumps from his left foot, and alights on his right foot, bringing the left smartly into position against the right.

(e) To assemble, the instructor commands: 1. ASSEMBLE, 2. MARCH. At the command MARCH all return to their original positions in column on the double.

## SECTION 2.—THE DRILL

3-2. (a) GENERAL.—All movements hereinafter described should be first carefully explained, laying stress upon their principal objects.

(b) The instructor should then illustrate each position or exercise until thoroughly understood by the class.

(c) *The starting positions.*—(1) After executing the starting positions by command, they may be repeated as many times as desired by giving the caution: BY THE NUMBERS, and then substituting for the commands of execution given the first time, the numbers: ONE, TWO, ONE, TWO, and so on, or ONE, TWO, THREE, FOUR, ONE, TWO, THREE, FOUR, and so on, as appropriate.



(2) When movements are executed to both left and right, sufficient numbers are used to complete the movement to both sides.

(3) For common faults in the combined starting positions of the arms and legs, see the references indicated.

(d) *Exercises.*—(1) In conducting exercises, the starting position is taken on command; each movement is then executed on command; each movement may then be repeated by giving the caution and numbers as in subpar. (c) (1) of par. 3-2.

(2) When an exercise is executed to both sides, it should be first conducted to the left and then repeated to the right.

(3) When an exercise is not completed in the standing position the standing position is resumed on command.

(4) For common faults, see references indicated.

3-3. THE STANDING POSITION.—(a) The standing position is the position of Attention (see par. 4-3) and is taken at the command: ATTENTION, or as hereinafter prescribed.

(b) The position of Attention is very important as all exercises start from and usually end in it. Instructors should criticize the position of Attention with such remarks as HEAD UP, CHIN IN, CHEST HIGH, KNEES STRAIGHT, etc.

*Starting positions of the arms.*

3-4. WING STANDING POSITION.—(a) Command: 1. HIPS, 2. FIRM. Arms are bent upward; hands placed on hips, fingers to the front, thumbs to the rear; palms of hands turned inward and pressing against ridge of hip bone; elbows pointing out to the side and slightly drawn back.

(b) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH. Arms are stretched downward with force the shortest way.

(c) *Common faults*: (1) Elbows drawn back too much and not pointed to the side; (2) Hands not firm on the hips.

3-5. YARD STANDING POSITION.—(a) Command: 1. ARMS SIDEWAYS, 2. RAISE. Arms, fully stretched, are slowly raised sideways to the horizontal; thumbs and fingers extended and joined; palms turned downward.

(b) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. SINK. Arms are slowly lowered sideways to the sides.

(c) *Common faults*: (1) Arms not held in the horizontal position; (2) Chest relaxed and not held high.

3-6. REACH STANDING POSITION.—(a) Command: 1. ARMS FORWARD, 2. RAISE. Arms, fully stretched, are slowly raised forward to the horizontal; thumbs and

fingers extended and joined; palms turned inward toward each other.

(b) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. SINK. Arms are slowly lowered forward to the sides.

(c) *Common faults*: In addition to those in par. 3-5 (c); (3) Palms not turned inward.

3-7. BEND STANDING POSITION.—(a) Command: 1. ARMS, 2. BEND. Arms are bent up quickly at the elbows; palms toward shoulders; fingers touching points of the shoulders; elbows drawn back and down to the sides.

(b) *Standing Position*.—Command: ARMS DOWNWARD, 2. STRETCH. Arms are stretched down to the sides with force the shortest way.

(c) *Common faults*: (1) Shoulders not back and square to the front; (2) Elbows not drawn in to the sides; (3) Fingers not resting on the shoulders.

3-8. FORWARD BEND STANDING POSITION.—(a) Command: 1. ARMS FORWARD, 2. BEND. Arms are bent quickly upward in front of the chest; elbows at height of shoulders and drawn well back; thumbs and fingers extended and joined; palms down, wrist and forearm in a straight line.

(b) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH. Arms are stretched down to the sides with force the shortest way.

(c) *Common faults*: (1) Elbows not at height of shoulders and not drawn back enough; (2) Shoulders carried forward; (3) Wrist and forearm not in a straight line.

3-9. STRETCH STANDING POSITION. (Two methods, (1) and (2)).—(a) Command: (1) 1. ARMS FORWARD AND UPWARD, 2. RAISE. Arms, fully stretched, are raised forward and upward to the vertical position; palms turned inward, shoulder width apart; thumbs and fingers extended and joined. Command: (2) 1. ARMS SIDEWAYS AND UPWARD, 2. RAISE. Arms are raised sideways to the yard standing position (par. 3-5), the hands are then quickly turned upward and the movement continued upward.

(b) *Standing Position*.—(Two methods, (1) and (2)).—Command: (1) 1. ARMS FORWARD AND DOWNWARD, 2. SINK. Arms are slowly lowered in the reverse manner to the sides. Command: (2) 1. ARMS SIDEWAYS AND DOWNWARD, 2. SINK. Arms are slowly lowered in the reverse manner to the sides.

(c) *Common faults*: (1) Arms not held straight and not in line with the trunk; (2) Palms not held shoulder width apart.

3-10. REST STANDING POSITION.—(a) Command: 1. NECK, 2. REST. Arms are bent quickly at the elbows, carried up the shortest way; hands are placed in back of the neck, palms to the front, thumbs

and fingers extended and joined, finger tips touching each other; elbows well back; chest high; head erect.

(b) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH. Arms are stretched down to the sides with force the shortest way.

(c) *Common faults*: (1) Head carried forward during arm movement; (2) Elbows not carried back far enough; (3) Fingers interlocking.

3-11. PALM STANDING POSITION.—(a) Command: 1. HANDS OUTWARD, 2. TURN. With the arms fully stretched and held close to the body, the palms are turned forward and outward away from the body as far as possible.

(b) *Standing Position*.—Command: 1. HANDS INWARD, 2. TURN. Hands are turned inward toward the body.

(c) *Common faults*: (1) Arms not held close to the body; (2) Shoulders carried forward.

*Starting positions of the legs.*

3-12. CLOSE STANDING POSITION.—(a) Command: 1. FEET, 2. CLOSE. By slightly raising toes from the deck and pivoting on heels, the feet are carried inward so inner sides of feet touch.

(b) *Standing Position*.—Command: 1. FEET, 2. OPEN. By pivoting on heels, the feet are turned out to the standing position.

(c) *Common faults*: (1) Body bent forward at the waist line; (2) Feet dragging deck while closing and opening.

3-13. OUTWARD WALK STANDING POSITION.—(a) Command: 1. LEFT (RIGHT) FOOT OUTWARD, 2. PLACE. The designated foot is placed two foot-lengths outward (45 degrees to the front); weight of body equally distributed on both feet; shoulders square to the front.

(b) *Standing Position*.—Command: 1. FEET TOGETHER, 2. PLACE. By pushing from deck with outward foot, it is carried back to the standing position.

(c) *Common faults*: (1) Shoulders not square to the front; (2) Feet sliding along deck; (3) Angle between feet not maintained; (4) Weight not equally distributed.

3-14. FORWARD WALK STANDING POSITION.—(a) Command: 1. LEFT (RIGHT) FOOT FORWARD, 2. PLACE. The designated foot is placed two foot-lengths directly forward; weight of body equally distributed on both feet; shoulders square to the front.

(b) *Standing Position*.—Command: 1. FEET TOGETHER, 2. PLACE. By pushing from deck with forward foot, it is carried back to the standing position.

(c) *Common faults*: In addition to those in par. 3-13(c): (5) Designated foot not placed directly forward.

3-15. OUTWARD LUNGE STANDING POSITION.—(a) Command: 1. LEFT (RIGHT) FOOT OUTWARD, 2. LUNGE. The designated foot is placed 3 foot-lengths outward (45 degrees to the front); outward knee directly over foot and bent to a right angle; both feet flat on deck; rear leg, trunk, and head in a straight line 45 degrees to the front.

(b) *Standing Position*.—Command: 1. FEET TOGETHER, 2. PLACE. By pushing from deck with outward foot, it is carried back to the standing position.

(c) *Common faults*: (1) Not stepping out 3 foot-lengths; (2) Feet not flat on deck; (3) Rear leg, body and head not in a straight line.

3-16. FORWARD LUNGE STANDING POSITION.—(a) Command: 1. LEFT (RIGHT) FOOT FORWARD, 2. LUNGE. The designated foot is placed 3 foot-lengths forward; forward knee is directly over foot and bent to a right angle; both feet flat on deck; rear leg, trunk, and head in a straight line to the front; shoulders square to the front.

(b) *Standing Position*.—Command: 1. FEET TOGETHER, 2. PLACE. By pushing off from deck with forward foot, it is carried back to the standing position.

(c) *Common faults*: In addition to those in par. 3-15(c): (4) Designated foot not placed directly forward; (5) Heel of the rear foot raised from deck.



3-17. **STRIDE STANDING POSITION.** (Three methods, (1), (2), and (3).—(a) Command: (1). **LEFT (RIGHT) FOOT SIDWAYS, 2. PLACE.** The designated foot is carried directly sideways 2 foot-lengths; weight of body equally distributed on both feet. Command: (2) **1. FEET SIDWAYS, 2. PLACE** (two motions). Left foot is carried 1 foot-length to the left; right foot is then carried 1 foot-length to the right.) Command: (3) **1. FEET SIDWAYS WITH A JUMP, 2. PLACE.** By pushing off from deck and springing upward, legs are parted sideways and feet are planted on deck 2 foot-lengths apart.

(b) *Standing Position* (Three methods, (1), (2), and (3)).—Command: (1) **1. FEET TOGETHER, 2. PLACE.** Foot which was placed sideways is carried back to the standing position. Command: (2) **1. FEET TOGETHER, 2. PLACE** (two motions). Left foot is carried in 1 foot-length; right foot is then carried to the standing position. Command: (3) **1. FEET TOGETHER WITH A JUMP, 2. PLACE.** By pushing off from deck and springing upward, both feet are carried to the standing position.

(c) *Common faults:* (1) Stride not long enough; (2) Body swaying; (3) Sliding feet on deck.

3-18. **TOE STANDING POSITION.**—(a) Command: **1. HEELS, 2. RAISE.** With heels together and arms held to the sides, the body is raised as high as possible on

the toes, maintaining the balance; chest held high; head erect.

(b) *Standing Position*.—Command: 1. HEELS, 2. SINK. Heels are lowered to deck.

(c) *Common faults*: (1) Body swaying; (2) Heels not held together.

3-19. SPRING STANDING POSITION.—(a) Command: 1. HEELS, 2. RAISE (see par. 3-18(a)), 3. KNEES, 4. BEND. Maintaining balance, knees are bent downward until upper legs and lower legs are at right angles to each other; position of rest of body is unaltered.

(b) *Standing Position*.—Command: 1. KNEES, 2. STRETCH (keeping heels clear of deck, knees are stretched upward), 3. HEELS, 4. SINK (see par. 3-18(b)).

(c) *Common faults*: (1) Heels lowered during knee bending and stretching; (2) Body swaying.

3-20. SPRING SITTING POSITION.—(a) Command: 1. HEELS, 2. RAISE (see par. 3-18(a)), 3. KNEES TO SITTING, 4. BEND. Maintaining balance, knees are bent downward until the buttocks touch the heels; position of rest of body is unaltered.

(b) *Standing Position*.—Command: 1. KNEES, 2. STRETCH, 3. HEELS, 4. SINK (see par. 3-19(b)).

(c) *Common faults*: In addition to those in par. 3-19(c): (3) Knees not bent enough.

*Starting positions of the trunk.*

3-21. **STOOP STANDING POSITION.**—(a) Command: 1. **TRUNK FORWARD**, 2. **BEND**. With knees straight and arms at the sides, the trunk is slowly lowered forward to the horizontal so that trunk and legs form a right angle.

(b) *Standing Position.*—Command: 1. **TRUNK UPWARD**, 2. **STRETCH**. Trunk is raised slowly upward to the standing position.

(c) *Common faults:* (1) Back rounded; (2) Head allowed to fall forward; (3) Chin not drawn in; (4) Knees not held straight.

3-22. **ARCH STANDING POSITION.**—(a) Command: 1. **TRUNK BACKWARD**, 2. **BEND**. With knees straight and arms at the sides, the trunk is bent slowly backward, bending taking place in upper spine; chest held high; chin drawn in.

(b) *Standing Position.*—Command: 1. **TRUNK UPWARD**, 2. **STRETCH**. Trunk is raised slowly upward to the standing position.

(c) *Common faults:* (1) Bending the lower spine; (2) Head allowed to fall backward; (3) Chin not drawn in.

3-23. **TWIST STANDING POSITION.**—(a) Command: 1. **TRUNK TO THE LEFT (RIGHT)**, 2. **TWIST**. With arms at the sides, the trunk is slowly twisted above the

hips, not in the thighs, to the designated side as far as possible; hips square to the front.

(b) *Standing Position*.—Command: 1. TRUNK FORWARD, 2. TWIST. Trunk is slowly twisted forward to the standing position.

(c) *Common faults*: (1) Twisting thighs or neck instead of trunk; (2) Hips not square to the front.

3-24. SIDE BEND STANDING POSITION.—(a) Command: 1. TRUNK TO THE LEFT (RIGHT), 2. BEND. With arms at the sides, chin drawn in, and feet firm on the deck, the trunk is slowly bent to the designated side as far as possible. Position of head is unaltered in relation to trunk.

(b) *Standing Position*.—Command: 1. TRUNK UPWARD, 2. STRETCH. Trunk is slowly raised upward to the standing position.

(c) *Common faults*: (1) Raising foot off the deck; (2) Head not in line with spine; (3) Twisting the trunk.

*Miscellaneous starting positions.*

3-25. CROUCH SITTING POSITION.—(a) Command: 1. CROUCH SITTING, 2. PLACE. Knees are bent to sitting as in par. 3-20(a); hands are placed on deck between knees, keeping them shoulder width apart; head held high; back straight.

(b) *Standing Position*.—Command: 1. ATTENTION. By pushing from deck with hands and stretching knees, the body is straightened up to the standing position.

(c) *Common faults*: (1) Back rounded; (2) Head carried forward.

3-26. STOOP FALLING POSITION.—(a) Command: 1. STOOP FALLING, 2. PLACE (two motions: Execute crouch sitting as in par. 3-25(a); Weight of body is taken on the arms and, without sliding foot along the deck, legs are stretched backward with force, toes placed on the deck so that body is in an inclined position, arms straight, legs, trunk, and head in a straight line).

(b) *Standing Position*.—Command: ATTENTION (two motions: By pushing from deck with toes, the legs are brought forward to the crouch sitting position; come to attention as in par. 3-25 (b)).

(c) *Common faults*: (1) Legs and trunk not in a straight line, allowing back to sway or hips to raise; (2) Sliding feet along the deck.

3-27. BACK STOOP FALLING POSITION.—(a) Command: 1. STOOP FALLING, 2. PLACE (see par. 3-26 (a)), 3. BACK STOOP FALLING ON LEFT (RIGHT) ARM, 4. TURN. By keeping designated arm and both legs straight, the body is turned on designated arm and foot; free hand placed on the deck about 18 inches

from the other hand; back toward deck; heels on deck; body in an inclined position; legs, trunk and head in a straight line.

(b) *Standing Position*.—Command: 1. STOOP FALLING ON THE LEFT (RIGHT) ARM, 2. TURN (the body is turned on designated arm and foot back to the stoop falling position), 3. ATTENTION (see par. 3-26 (b)).

(c) *Common faults*: In addition to those in par. 3-25 (c) and 3-26 (c): (5) Arms not held straight; (6) Body allowed to hinge at waistline; (7) Head carried forward and not in line with trunk.

3-28. SIDE FALLING POSITION.—(a) Command: 1. STOOP FALLING, 2. PLACE (see par. 2-26 (a)), 3. SIDE FALLING ON LEFT (RIGHT) ARM, 4. TURN. Body is turned on designated arm and foot until designated side of body is turned toward deck; free arm at the side; supporting arm straight; body in an inclined position; legs, trunk, and head in a straight line.

(b) *Standing Position*.—Command: 1. STOOP FALLING ON THE LEFT (RIGHT) ARM, 2. TURN (body is turned on designated arm and foot back to the stoop falling position), 3. ATTENTION (see par. 3-26 (b)).

(c) *Common faults*: (1) Body and arm not held straight; (2) Head held to the side; (3) Chin not drawn in; (4) Legs not together.

3-29. LYING POSITION.—(a) Command: 1. STOOP FALLING, 2. PLACE (see par. 3-26 (a)), 3. LYING ON THE LEFT (RIGHT) ARM, 4. TURN. Body is turned on designated arm and foot to the back stoop falling position, as in par. 3-27 (a), then immediately lowered to the deck so that back of body is flat on the deck; arms at the sides; legs together.

(b) *Standing Position*.—Command: 1. STOOP FALLING ON THE LEFT (RIGHT) ARM, 2. TURN (body is turned on designated arm and foot to the stoop falling position), 3. ATTENTION (see par. 3-26 (b)).

(c) *Common faults*: (1) Legs apart, (2) Arms not at the side.

3-30. FORWARD LYING POSITION.—(a) Command: 1. STOOP FALLING, 2. PLACE (see par. 3-26 (a)), 3. FORWARD LYING, 4. PLACE. Body is quickly lowered to the deck and arms placed at the sides; chin drawn in; legs together.

(b) *Standing Position*.—Command: 1. STOOP FALLING, 2. PLACE (hands are placed on the deck as in stoop falling position and arms are straightened, raising body to the stoop falling position), 3. ATTENTION (see par. 3-26 (b)).

(c) *Common faults*: (1) Front of body not flat on deck; (2) Arms not at the sides; (3) Legs apart; (4) Chin not drawn in.



3-31. **STRIDE KNEELING POSITION.**—(a) Command: 1. **STRIDE KNEELING**, 2. **PLACE** (two motions: Right knee is bent, left knee placed on the deck about 6 inches to left of right foot, half kneeling; right knee is placed on the deck so that distance between knees is about 12 inches, body, from the knees up, held straight, heels together).

(b) *Standing Position.*—Command: **ATTENTION** (two motions: Left knee is raised, left foot placed on the deck opposite right knee, both hands are placed on left knee; by stretching knees, body is raised to the standing position and arms are lowered to the sides).

(c) *Common faults:* (1) Body hinged at waist-line; (2) Touching deck with hands in taking the position; (3) Heels not together when in kneeling position.

*Combined starting positions of the arms and legs.*

3-32. **WING STRIDE STANDING POSITION.**—(a) Command: 1. **LEFT (RIGHT) FOOT SIDEWAYS AND HIPS**, 2. **FIRM**. Simultaneously execute the movements as prescribed in pars. 3-17 (a) (1) and 3-4 (a).

(b) *Standing Position.*—Command: 1. **FEET TOGETHER AND ARMS DOWNWARD**, 2. **STRETCH**. Simultaneously execute the movements as prescribed in pars. 3-17 (b) (1) and 3-4 (b).

3-33. BEND TOE STANDING POSITION.—(a) Command: 1. HEELS RAISING AND ARMS, 2. BEND. Simultaneously execute the movements as prescribed in pars. 3-18 (a) and 3-7 (a).

(b) *Standing Position*.—Command: 1. HEELS SINKING AND ARMS DOWNWARD, 2. STRETCH. Simultaneously execute the movements as prescribed in pars. 3-18 (b) and 3-7 (b).

3-34. REST OUTWARD WALK STANDING POSITION.—(a) Command: 1. LEFT (RIGHT) FOOT OUTWARD PLACE AND NECK, 2. REST. Simultaneously execute the movements as prescribed in pars. 3-13 (a) and 3-10 (a).

(b) *Standing Position*.—Command: 1. FEET TOGETHER AND ARMS DOWNWARD, 2. STRETCH. Simultaneously execute the movements as prescribed in pars. 3-13 (b) and 3-10 (b).

3-35. STRETCH OUTWARD LUNGE STANDING POSITION.—(a) Command: 1. LEFT (RIGHT) FOOT OUTWARD LUNGING AND ARMS UPWARD, 2. RAISE. Simultaneously execute the movements as prescribed in pars. 3-15 (a) and 3-9 (a) (1).

(b) *Standing Position*.—Command: 1. FEET TOGETHER AND ARMS FORWARD AND DOWNWARD, 2. SINK. Simultaneously execute the movements as prescribed in pars. 3-15 (b) and 3-9 (b) (1).

(c) The stretch position can also be taken on appropriate commands by raising the arms sideways and upwards. (See pars. 3-9 (a) (2) and (b) (2).)

*Exercises of the legs, from the starting positions.*

3-36. WING STANDING; HEEL RAISING.—(a) *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. HEELS, 2. RAISE, 3. HEELS, 4. SINK (see par. 3-18), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

3-37. YARD, STRIDE STANDING; HEEL RAISING.—(a) *Starting Position*.—Command: 1. LEFT (RIGHT) FOOT SIDeways AND ARMS SIDeways, 2. RAISE (see pars. 3-17 (a) (1) and 3-5 (a)).

(b) *Exercise*.—Command: 1. HEELS, 2. RAISE, 3. HEELS, 4. SINK (see par. 3-18), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position*.—Command: 1. FEET TOGETHER AND ARMS DOWNWARD, 2. SINK (see pars. 3-17 (b) (1) and 3-5 (b)).

3-38. WING, OUTWARD WALK STANDING; HEEL RAISING.—(a) *Starting Position*.—Command: 1. LEFT (RIGHT) FOOT OUTWARD, HIPS, 2. FIRM (see pars. 3-13 (a) and 3-4 (a)).

(b) *Exercise*.—Command: 1. HEELS, 2. RAISE, 3. HEELS, 4. SINK (see par. 3-18), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position*.—Command: 1. FEET TOGETHER AND ARMS DOWNWARD, 2. STRETCH (see pars. 3-13 (b) and 3-4 (b)).

3-39. YARD, FORWARD WALK STANDING; HEEL RAISING.—(a) *Starting Position*.—Command: 1. LEFT (RIGHT) FOOT FORWARD AND ARMS SIDEWAYS, 2. RAISE (see pars. 3-14 (a) and 3-5 (a)).

(b) *Exercise*.—Command: 1 HEELS, 2. RAISE, 3 HEELS, 4. SINK (see par. 3-18), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position*.—Command: 1. FEET TOGETHER AND ARMS DOWNWARD, 2. SINK (see pars. 3-14 (b) and 3-5 (b)).

3-40. WING STANDING; HEEL RAISING AND KNEE BENDING.—(a) *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. HEELS, 2. RAISE, 3. KNEES, 4. BEND, 5. KNEES, 6. STRETCH, 7. HEELS, 8. SINK (see par. 3-19), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

3-41. YARD STANDING; HEEL RAISING AND KNEE BENDING TO SITTING.—(a) *Starting Position*.—Command: 1. ARMS SIDEWAYS, 2. RAISE (see par. 3-5 (a)).

(b) *Exercise*.—Command: 1. HEELS, 2. RAISE, 3. KNEES TO SITTING, 4. BEND, 5. KNEES, 6. STRETCH, 7. HEELS, 8. SINK, (see par. 3-20), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. SINK (see par. 3-5 (b)).

3-42. WING STANDING; LUNGING OUTWARD.—(a) *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. LEFT FOOT OUTWARD, 2. LUNGE, 3. FEET TOGETHER, 4. PLACE, 5. RIGHT FOOT OUTWARD, 6. LUNGE, 7. FEET TOGETHER, 8. PLACE (see par. 3-15), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

3-43. BEND STANDING; LUNGING FORWARD.—(a) *Starting Position*.—Command: 1. ARMS, 2. BEND (see par. 3-7 (a)).

(b) *Exercise*.—Command: 1. LEFT FOOT FORWARD, 2. LUNGE, 3. FEET TOGETHER, 4. PLACE, 5. RIGHT FOOT FORWARD, 6. LUNGE, 7. FEET TOGETHER, 8. PLACE (see par. 3-16), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-7 (b)).

3-44. WING STANDING; ADVANCE BY LUNGING FORWARD.—(a) *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. ADVANCING FORWARD BY THE NUMBERS, 2. ONE, 3. TWO, 4. THREE, 5. FOUR, and so on. At the command one, the left foot is placed forward as in par. 3-16 (a); at TWO the right foot is placed alongside the left; at THREE the right foot is placed forward; at FOUR the left foot is placed alongside the right, and so on. Then the class is faced about, the exercise repeated, and the class is faced about again.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

(d) *Additional common faults*: The class not working in unison and not keeping the proper dress in ranks while advancing.

*Exercises of the arms, from the starting positions.*

3-45. STANDING; ARM STRETCHING SIDEWAYS.—(a) *Exercise*.—Command: 1. ARMS SIDEWAYS, 2. STRETCH (two motions: Arms are bent upward to the bend position as in par. 3-7 (a); Arms are stretched sideways to the horizontal with force, palms turned down), 3. ARMS DOWNWARD, 4. STRETCH (two motions: Arms are carried to the bend position with a snap; Arms are stretched downward with

force to the sides), 5. BY THE NUMBERS, 6. ONE, 7. TWO, 8. THREE, 9. FOUR, and so on.

NOTE.—The pause at the bend position is very short.

(b) *Common faults*: (1) Arms not fully stretched; (2) Palms not turned down; (3) Not enough snap and effort in the bending movement.

3-46. STANDING; ARM STRETCHING UPWARD.—(a) *Exercise*.—Command: 1. ARMS UPWARD, 2. STRETCH (two motions: Arms are bent upward as in par. 3-7 (a); Arms are stretched upward with force to the vertical position; palms turned inward, shoulder width apart), 3. ARMS DOWNWARD, 4. STRETCH (two motions: Arms are carried to the bend position with a snap; Arms are stretched downward with force to the sides), 5. BY THE NUMBERS, 6. ONE, 7. TWO, 8. THREE, 9. FOUR, and so on.

NOTE.—The pause at the bend position is very short.

(b) *Common faults*: (1) Arms not stretched upward with force; (2) Palms not turned inward and shoulder width apart.

3-47. STANDING; ARM STRETCHING FORWARD.—(a) *Exercise*.—Command: 1. ARMS FORWARD, 2. STRETCH (two motions: Arms are bent upward as in par. 3-7 (a); Arms are stretched forward to the horizontal position with force, palms turned inward, shoulder width apart), 3. ARMS DOWNWARD, 4.



**STRETCH** (two motions: Arms are carried to the bend position with a snap; Arms are stretched downward with force to the sides), 5. **BY THE NUMBERS**, 6. **ONE**, 7. **TWO**, 8. **THREE**, 9. **FOUR**, and so on.

**NOTE.**—The pause at the bend position is very short.

**3-48. STANDING; ARM STRETCHING BACKWARD.**—  
(a) *Exercise.*—Command: 1. **ARMS BACKWARD**, 2. **STRETCH** (two motions: Arms are bent upward as in par. 3-7 (a); Arms are stretched downward and backward with force, palms turned inward, shoulder width apart), 3. **ARMS DOWNWARD**, 4. **STRETCH** (two motions: Arms are carried to the bend position with a snap; Arms are stretched downward with force to the sides), 5. **BY THE NUMBERS**, 6. **ONE**, 7. **TWO**, 8. **THREE**, 9. **FOUR**, and so on.

**NOTE.**—The pause at the bend position is very short.

(b) *Common faults:* (1) Head carried forward as arms are stretched backward; (2) Arms not carried back far enough.

**3-49. FORWARD BEND STANDING; ARM STRIKING SIDEWAYS.**—(a) *Starting Position.*—Command: 1. **ARMS FORWARD**, 2. **BEND** (see par. 3-8 (a)).

(b) *Exercise.*—Command: 1. **ARMS SIDEWAYS**, 2. **STRIKE** (Arms are stretched sideways with force to the yard position; upper arms in a firm position), 3.

ARMS FORWARD, 4. BEND (Arms are carried with force to the first position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-8 (b)).

3-50. BEND STANDING; ARM STRETCHING IN VARIOUS DIRECTIONS.—(a) *Starting Position*.—Command: 1. ARMS, 2. BEND (see par. 3-7 (a)).

(b) *Exercise*.—Command: 1. ARMS SIDeways, 2. STRETCH (see par. 3-45), 3. ARMS, 4. BEND, 5. ARMS, UPWARD, 6. STRETCH (see par. 3-46), 7. ARMS, 8. BEND, 9. ARMS FORWARD, 10. STRETCH (see par. 3-47), 11. ARMS, 12. BEND, 13. ARMS BACKWARD, 14. STRETCH (see par. 3-48), 15. ARMS, 16. BEND, 17. BY THE NUMBERS, 18. ONE, 19. TWO, 20. THREE, 21. FOUR, 22. FIVE, 23. SIX, 24. SEVEN, 25. EIGHT, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-7 (b)).

3-51. REACH STANDING; ARM SWINGING UPWARD AND FORWARD.—(a) *Starting Position*.—Command: 1. ARMS FORWARD, 2. RAISE (see par. 3-6 (a)).

(b) *Exercise*.—Command: 1. ARMS UPWARD, 2. SWING (Arms are swung upward to the stretch position), 3. ARMS FORWARD, 4. SWING (Arms are swung forward to the reach position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

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(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. SINK (see par. 3-6 (b)).

3-52. STRETCH STANDING; ARM SWINGING FORWARD AND UPWARD.—(a) *Starting Position*.—Command: 1. ARMS FORWARD AND UPWARD, 2. RAISE (see par. 3-9 (a) (1)).

(b) *Exercise*.—Command: 1. ARMS FORWARD, 2. SWING (Arms are swung forward to the reach position), 3. ARMS UPWARD, 4. SWING (Arms are swung upward to the stretch position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position*.—Command: 1. ARMS FORWARD AND DOWNWARD, 2. SINK (see par. 3-9 (b) (1)).

3-53. REACH STANDING; ARM SWINGING SIDEWAYS.—(a) *Starting Position*.—Command: 1. ARMS FORWARD, 2. RAISE (see par. 3-6 (a)).

(b) *Exercise*.—Command: 1. ARMS SIDEWAYS, 2. SWING (Arms are swung sideways to the yard position, palms turned downward), 3. ARMS FORWARD, 4. SWING (Arms are swung forward to the reach position, palms turned inward), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

*Standing Position*.—Command: 1. ARMS DOWNWARD, SINK (see par. 3-6 (b)).

(d) *Common faults*: (1) Head carried forward during the arms swinging sideways.

**3-54. YARD STANDING; ARM SWINGING FORWARD.—**

(a) *Starting Position.*—Command: 1. ARMS SIDEWAYS, 2. RAISE (see par. 3-5 (a)).

(b) *Exercise.*—Command: 1. ARMS FORWARD, 2. SWING (Arms are swung forward to the reach position, palms turned inward), 3. ARMS SIDEWAYS, 4. SWING (Arms are swung sideways to the yard position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(c) *Standing Position.*—Command: 1. ARMS DOWNWARD, 2. SINK (see par. 3-5 (b)).

(d) *Common faults:* (1) Head carried forward during the arms swinging sideways.

**3-55. STANDING; ARM SWINGING FORWARD AND UPWARD.—**(a) *Exercise.*—Command: 1. ARMS FORWARD AND UPWARD, 2. SWING (Arms are swung forward and upward), 3. ARMS FORWARD AND DOWNWARD, 4. SWING (Arms are swung forward and downward to the standing position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(b) *Common faults:* (1) Arms not held straight and not shoulder width apart; (2) Arms allowed to swing beyond thighs in the downward swing.

**3-56. STANDING; ARM SWINGING SIDEWAYS AND UPWARD.—**(a) *Exercise.*—Command: 1. ARMS SIDEWAYS AND UPWARD, 2. SWING (Arms are swung sideways and upward to the stretch position, turning palms up while passing the yard position), 3. ARMS SIDEWAYS

AND DOWNWARD, 4. SWING (Arms are swung sideways and downward to the standing position, turning palms down while passing the yard position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

(b) *Common faults*: In addition to those in par. 3-55: (3) Arms allowed to slap thighs in the downward swing.

3-57. STANDING; ARM CIRCLING WITH A SWING.—(a) *Exercise*.—Command: 1. ARMS FORWARD AND UPWARD, 2. SWING (Arms are swung forward and upward to the stretch position), 3. ARMS SIDEWAYS AND DOWNWARD, 4. SWING (Arms are swung sideways and downward to the standing position, turning the palms down while passing the yard position), 5. BY THE NUMBERS, 6. ONE, 7. TWO, and so on.

3-58. HALF STRETCH STANDING; ARM CHANGING WITH A SWING.—(a) *Starting Position*.—Command: 1. LEFT (RIGHT) ARM FORWARD AND UPWARD, 2. RAISE (see par. 3-9 (a) (1)).

(b) *Exercise*.—Command: 1. ARM CHANGING WITH A SWING BY THE NUMBERS, 2. ONE (Arm above head is swung forward and downward and at same time other arm is swung forward and upward), 3. TWO (Arms are changed in reverse manner), and so on.

(c) *Standing Position*.—Command: 1. LEFT (RIGHT) ARM FORWARD AND DOWNWARD, 2. SINK (see par. 3-9 (b) (1)).

(d) *Common faults*: (1) Arms not held straight during the swinging; (2) Head carried forward; (3) Shoulders not held firm.

3-59. STRETCH STANDING; ARM PARTING.—(a) *Starting Position*.—Command: 1. ARMS FORWARD AND UPWARD, 2. RAISE (see par. 3-9 (a) (1)).

(b) *Exercise*.—Command: 1. ARMS PARTING BY THE NUMBERS, 2. ONE (Arms are quickly parted and lowered to the yard (A) position—the yard (A) position is the same as the yard position described in par. 3-5, except that the palms are turned upward), 3. TWO (Arms are swung upward to the stretch position), and so on.

(c) *Standing Position*.—Command: 1. ARMS FORWARD AND DOWNWARD, 2. SINK (see par. 3-9 (b) (1)).

3-60. YARD (A) STANDING; ARM PARTING.—(a) *Starting Position*.—Command: 1. ARMS SIDEWAYS, 2. RAISE (see par. 3-5 (a)), 3. HANDS UPWARD, 4. TURN (Palms are turned upward).

(b) *Exercise*.—Command: 1. ARMS PARTING BY THE NUMBERS, 2. ONE (Arms are swung upward to the stretch position), 3. TWO (Arms are parted and lowered to the yard (A) position), and so on.

(c) *Standing Position*.—Command: 1. HANDS DOWNWARD, 2. TURN (Palms are turned downward), 3. ARMS DOWNWARD, 4. SINK (see par. 3-5 (b)).

3-61. WING STANDING; HEAD BENDING BACKWARD (FORWARD).—(a). *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. HEAD BACKWARD, 2. BEND (Head is bent backward as far as possible, chin drawn in, shoulders held firm), 3. HEAD UPWARD, 4. STRETCH (Head is raised to the standing position), 5. HEAD FORWARD, 6. BEND, 7. HEAD UPWARD, 8. STRETCH, 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

NOTE: Head bending can also be carried out from the bend, yard, or forward bend standing positions.

3-62. WING STANDING; HEAD BENDING SIDEWAYS.—(a) *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. HEAD TO THE LEFT, 2. BEND (Head is slowly bent to the left as far as possible, chin drawn in, shoulders held firm), 3. HEAD UPWARD, 4. STRETCH (Head is slowly raised to the standing position), 5. HEAD TO THE RIGHT, 6. BEND, 7. HEAD UPWARD, 8. STRETCH, 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

NOTE: Head bending sideways can also be carried out from the bend, yard, or forward bend standing positions.



3-63. WING STANDING; HEAD TWISTING.—(a) *Starting Position*.—Command: 1. HIPS, 2. FIRM (see par. 3-4 (a)).

(b) *Exercise*.—Command: 1. HEAD TO THE LEFT, 2. TWIST (Head is slowly twisted to the left as far as possible, keeping the head erect and the chin drawn in), 3. HEAD FORWARD, 4. TWIST (Head is slowly twisted forward to the standing position), 5. HEAD TO THE RIGHT, 6. TWIST, 7. HEAD FORWARD, 8. TWIST, 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-4 (b)).

NOTE: Head twisting can also be carried out from the bend, yard, and spring sitting positions.

3-64. REST STANDING; TRUNK BENDING BACKWARD (FORWARD).—(a) *Starting Position*.—Command: 1. NECK, 2. REST (see par. 3-10 (a)).

(b) *Exercise*.—Command: 1. TRUNK BACKWARD, 2. BEND, 3. TRUNK UPWARD, 4. STRETCH (see par. 3-22), 5. TRUNK FORWARD, 6. BEND, 7. TRUNK UPWARD, 8. STRETCH (see par. 3-21), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-10 (b)).

NOTE: Trunk bending backward and forward can also be carried out from the wing, bend, yard, or stretch standing positions.

## 3-65. YARD STANDING; TRUNK BENDING SIDEWAYS.—

(a) *Starting Position*.—Command: 1. ARMS SIDEWAYS, 2. RAISE (see par. 3-5 (a)).

(b) *Exercise*.—Command: 1. TRUNK TO THE LEFT, 2. BEND, 3. TRUNK UPWARD, 4. STRETCH, 5. TRUNK TO THE RIGHT, 6. BEND, 7. TRUNK UPWARD, 8. STRETCH, (see par. 3-24), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. SINK (see par. 3-5 (b)).

NOTE: Trunk bending sideways can also be carried out from the wing, rest, bend, stretch or forward bend standing positions.

3-66. REST STANDING; TRUNK TWISTING.—(a) *Starting Position*.—Command: 1. NECK, 2. REST (see par. 3-10 (a)).

(b) *Exercise*.—Command: 1. TRUNK TO THE LEFT, 2. TWIST, 3. TRUNK FORWARD, 4. TWIST, 5. TRUNK TO THE RIGHT, 6. TWIST, 7. TRUNK FORWARD, 8. TWIST (see par. 3-23), 9. BY THE NUMBERS, 10. ONE, 11. TWO, 12. THREE, 13. FOUR, and so on.

(c) *Standing Position*.—Command: 1. ARMS DOWNWARD, 2. STRETCH (see par. 3-10 (b)).

NOTE: Trunk twisting can also be carried out from the bend, yard, wing, forward bend, or stretch standing positions.

# CHAPTER IV

## SCHOOL OF THE RECRUIT

### SECTION 1—GENERAL

4-1. DUTIES OF INSTRUCTOR.—The instructor explains briefly each movement, first executing it himself. He requires the recruits to take the proper positions unassisted and touches them only for the purpose of correction when they are unable to correct themselves. He avoids keeping the recruits too long at any position or movement. Each position or movement should be understood before passing to another. The instructor exacts by degrees the desired precision and uniformity.

4-2. GROUPING RECRUITS.—(a) Recruits are separated into small groups consistent with the available number of trained instructors in order to facilitate individual instruction. Each group is formed as a squad.

(b) As instruction progresses, the recruits are grouped according to proficiency. Those who show a lack of aptitude and quickness are separated from the others and placed under the most experienced drill masters. Care should be taken that men who are naturally inapt are not ridiculed or treated

harshly; an officer should carefully superintend the instruction of such men to insure that they are given firm, but quiet and considerate handling.

## SECTION 2—POSITIONS

4-3. POSITION OF ATTENTION (fig. 1).—(a) Heels on the same line and as near each other as the conformation of the man permits.

(b) Feet turned out equally and forming an angle of 45°.

(c) Knees straight without stiffness.

(d) Hips level and drawn back slightly; body erect and resting equally on hips, chest lifted and arched; shoulders square and falling equally.

(e) Arms hanging straight down without stiffness so that the thumbs are along the seams of the trousers; back of the hands out; fingers held naturally.

(f) Head erect and squarely to the front; chin drawn in so that the axis of the head and neck is vertical; eyes straight to the front.

(g) Weight of the body resting equally on the heels and the balls of the feet.

(h) In assuming the position of Attention, the heels are brought together smartly and audibly.

4-4. RESTS.—Being at a halt, the commands are: FALL OUT; RST; AT EASE; or 1. PARADE, 2. REST.

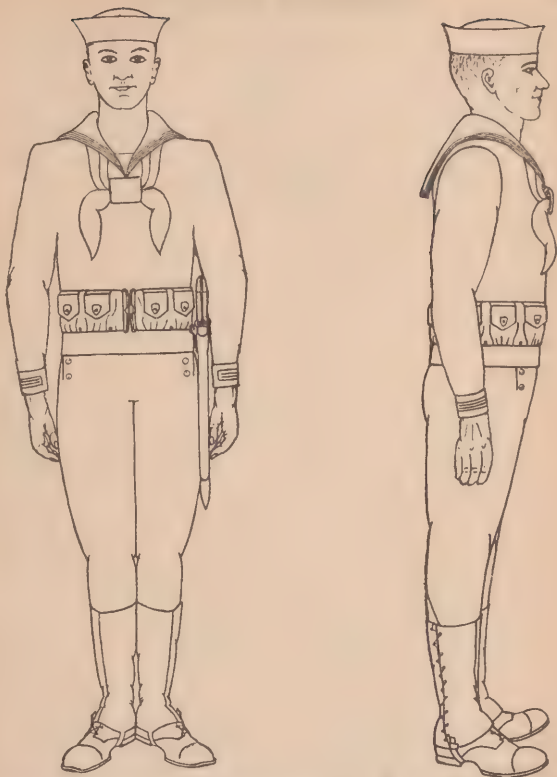


FIGURE 1.—Position of attention. (L. F. M., U. S. Navy.)  
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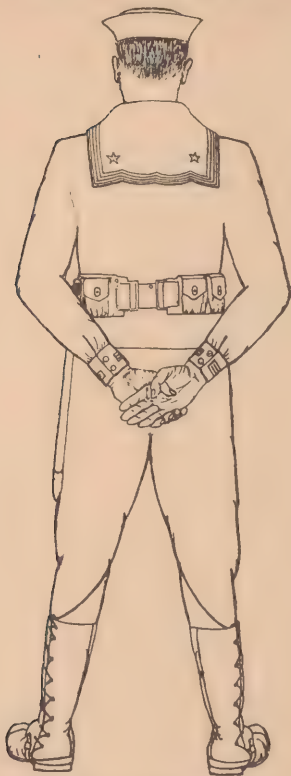


FIGURE 2.—Parade rest.  
(L. F. M., U. S. Navy.)

(a) At the command **FALL OUT**, the men leave the ranks but are required to remain in the immediate vicinity. The men resume their former places at attention at the command **FALL IN**. On the march, men will fall in **AT EASE**, unless they were at attention when the command **FALL OUT** was given.

(b) At the command **REST**, one foot is kept in place. Silence and immobility are not required.

(c) At the command **AT EASE**, the right foot is kept in place. Silence, but not immobility is required.

(d) At the command of execution, **REST**, of 1. **PARADE**, 2. **REST**, move the left foot smartly 12 inches to the left of the right foot keeping the legs straight so that the weight of the body rests equally on both feet. At the same time, clasp the hands behind the back, palms to the rear, thumb and fingers of the right hand clasping the left thumb without constraint; preserve silence and immobility (fig. 2).

(e) Being at any of the rests except **FALL OUT**, to resume the position of attention, the commands are: 1. **SQUAD**, 2. **ATTENTION**. At the command **ATTENTION**, take the position as prescribed in paragraph 4-3.

4-5. **EYES RIGHT OR LEFT**.—The commands are: 1. **EYES**, 2. **RIGHT** (fig. 3), (**LEFT**), 3. **READY**, 4.

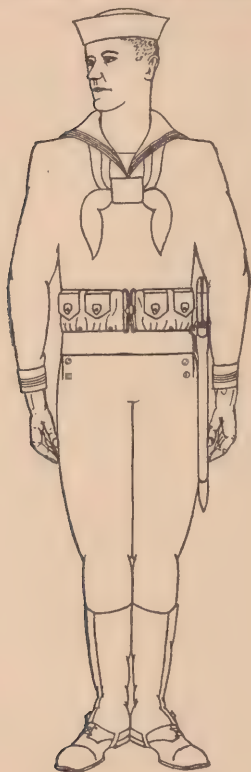


FIGURE 3.—Eyes right.  
(L. F. M., U. S. Navy.)



**FRONT.** At the command **RIGHT**, each man turns his head and eyes to the right. At the command **FRONT**, the head and eyes are turned to the front.

**4-6. FACINGS.**—All facings are executed from the halt and in the cadence of quick time.

(a) *To the flank.*—(1) The commands are: 1. **RIGHT (LEFT)**, 2. **FACE (ONE, TWO)**. At the command **FACE (or ONE)**, slightly raise the left heel and the right toe, face to the right, turning on the right heel, assisted by a slight pressure on the ball of the left foot. Hold the left leg straight without stiffness. At (**TWO**), place the left foot beside the right. (2) Execute **LEFT, FACE** on the left heel in a corresponding manner.

(b) *To the rear.*—The commands are: 1. **ABOUT**, 2. **FACE (ONE, TWO)**. At the command **FACE (or ONE)**, carry the toe of the right foot a half-foot length to the rear and slightly to the left of the left heel without changing the position of the left foot; weight of the body mainly on the heel of the left foot; right leg straight without stiffness. At (**TWO**), face to the rear, turning to the right on the left heel and on the ball of the right foot; place the right heel beside the left.

**4-7. SALUTE WITH THE HAND (fig. 4).**—(a) The commands are: 1. **HAND**, 2. **SALUTE (ONE, TWO)**. At the command **SALUTE (or ONE)**, raise the right

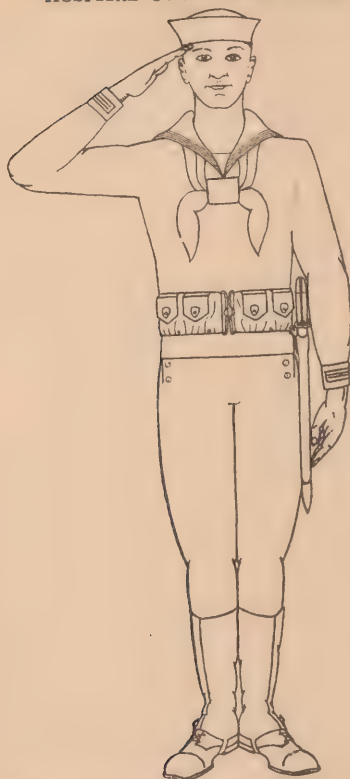


FIGURE 4.—Hand salute. (L. F. M., U. S. Navy.)

hand smartly until the tip of the forefinger touches the lower part of the headdress or forehead above and slightly to the right of the right eye, thumb and fingers extended and joined, palm to the left, upper arm horizontal, forearm inclined at  $45^{\circ}$ , hand and wrist straight; at the same time turn the head and eyes toward the person saluted. At (TWO), drop the arm to its normal position by the side in one motion, at the same time turning the head and eyes to the front.

(b) Execute the first position of the hand salute when six paces from the person saluted, or at the nearest point of approach, if more than six paces. Hold the first position until the person saluted has passed or the salute is returned. Then execute the second movement of the hand salute.

### SECTION 3.—STEPS AND MARCHINGS

4-8. GENERAL.—(a) All steps and marchings executed from the halt, except right step, begin with the left foot.

(b) The instructor indicates the proper cadence when necessary by calling "One," "Two," "Three," "Four," as the left and right foot respectively strike the ground.

4-9 QUICK TIME.—Being at a halt, to march forward in quick time, the commands are: 1. FORWARD,

2. MARCH. At the command FORWARD, shift the weight of the body to the right leg without perceptible movement. At the command MARCH, step off smartly with the left foot and continue the march with 30-inch steps taken straight forward without stiffness or exaggeration of movements. Swing the arms easily in their natural arcs, 6 inches to the front and 3 inches to the rear of the body.

4-10. DOUBLE TIME.—(a) Being at a halt or in march in quick time, to march in double time the commands are: 1. DOUBLE TIME, 2. MARCH.

(1) If at a halt, at the command DOUBLE TIME, shift the weight of the body to the right leg without perceptible movement. At the command MARCH, raise the forearms, fingers closed, knuckles out, to a horizontal position along the waistline, take up an easy run with the step and cadence of double time, allowing a natural swinging motion to the arms.

(2) If marching in quick time, at the command MARCH, given as either foot strikes the ground, take one more step in quick time and then step off in double time.

(b) To resume the quick time from double time the commands are: 1. QUICK TIME, 2. MARCH. At the command MARCH, given as either foot strikes the ground, advance and plant the other foot in double time; resume the quick time, dropping the hands by the sides.

4-11. To HALT.—(a) To halt when marching in quick time, the commands are: 1. SQUAD, 2. HALT. At the command HALT, given as either foot strikes the ground, execute the halt in two counts by advancing and planting the other foot and then bringing up the foot in rear.

(b) To halt when marching in double time, the commands are: 1. SQUAD, 2. HALT. At the command HALT, given as either foot strikes the ground, advance and plant the other foot as in double time, then halt in two counts as in quick time.

(c) To halt from side step the commands are: 1. SQUAD, 2. HALT. At the command HALT, given as the heels are together, plant the foot next in cadence and come to the halt when the heels are next brought together.

4-12. To MARK TIME.—The commands are: 1. MARK TIME, 2. MARCH.

(a) Being in march, at the command MARCH, given as either foot strikes the ground, advance and plant the other foot; bring up the foot in rear, placing it so that both heels are on line and continue the cadency by alternately raising and planting each foot. The feet are raised 2 inches from the ground.

(b) Being at a halt, at the command MARCH, raise and plant first the left foot, and then the right as prescribed in paragraph 4-12 (a).

(c) Mark time may be executed in either quick time or double time.

(d) The halt is executed from mark time as from quick time or double time by taking 2-inch vertical in place of 30-inch horizontal steps.

4-13. HALF STEP.—(a) The commands are: 1. HALF STEP, 2. MARCH. At the command MARCH, take steps of 15 inches in quick time and 18 inches in double time in the same manner as prescribed in paragraphs 4-9 and 4-10.

(b) FORWARD, HALF STEP, HALT, and MARK TIME may be executed one from the other in quick or double time.

(c) To resume the full step from half step or mark time the commands are: 1. FORWARD, 2. MARCH.

4-14. SIDE STEP.—(a) Being at a halt or marking time the commands are: 1. RIGHT (LEFT) STEP, 2. MARCH. At the command MARCH, carry the right foot 12 inches to the right; place the left foot beside the right, left knee straight. Continue in the cadence of quick time.

(b) The side step is executed in quick time from a halt and for short distances only.

4-15. BACK STEP.—(a) Being at a halt or marking time the commands are: 1. BACKWARD, 2. MARCH. At the command MARCH, take steps of 15 inches straight to the rear.

(b) The back step is executed in quick time from a halt and for short distances only.

4-16. TO FACE IN MARCHING.—The facings in marching are an important part of movements such as, COLUMN RIGHT, CLOSE, TAKE INTERVAL, EXTEND, etc.

(a) To face to the right in marching and advance from a halt, at the command of execution of the movement, turn to the right on the ball of the right foot and at the same time step off in the new direction with the left foot with a half step, full step, or in double time, as the case may be.

(b) To face to the right in marching and advance, being in march, at the command of execution, given as the right foot strikes the ground, advance and plant the left foot, then face to the right in marching and step off in the new direction with the right foot with a half step, full step, or in double time, as the case may be.

(c) To face to the rear in marching, being in march, the commands are: 1. TO THE REAR, 2. MARCH. At the command MARCH, given as the right foot strikes the ground, advance and plant the left foot; turn to the right about on the balls of both feet and immediately step off with the left foot.

4-17. TO MARCH BY THE FLANK.—Being in march, the commands are: 1. BY THE RIGHT (LEFT) FLANK, 2. MARCH. At the command MARCH, given as the

right foot strikes the ground, advance and plant the left foot, then face to the right in marching and step off in the new direction with the right foot.

4-18. To CHANGE STEP.—The commands are: 1. CHANGE STEP, 2. MARCH. (a) Being in march in quick time, at the command MARCH, given as the right foot strikes the ground, advance and plant the left foot; plant the toe of the right foot near the heel of the left and step off with the left foot.

(b) Execute the change on the right foot similarly, the command MARCH being given as the left foot strikes the ground.

4-19. To MARCH OTHER THAN AT ATTENTION.—The commands are: 1. ROUTE STEP, 2. MARCH; or 1. AT EASE, 2. MARCH.

(a) 1. ROUTE STEP, 2. MARCH. At the command MARCH, men are not required to march at attention, in cadence, or to maintain silence.

(b) 1. AT EASE, 2. MARCH. At the command MARCH, men are not required to march at attention or in cadence but they will maintain silence.



## CHAPTER V

### SCHOOLS OF THE SQUAD, PLATOON, AND COMPANY

The instructions for drill contained in this chapter are based on Chapter 3 of the Landing Force Manual, U. S. Navy, and have for their purpose disciplined training in orderly, group movements. To accomplish the mission of the drills covered by these instructions, smartness and precision in the execution of every detail is necessary.

In this chapter the word "squad" refers to the unit having a normal strength of eight men, one of whom is designated as squad leader and another as second in command. When the squad contains that number of men the drills can be performed most satisfactorily. Such a squad must not be confused with the litter squad (the so-called Hospital Corps squad), which consists of four men serving as the bearers of one litter. Nor should the drills described in this chapter be considered the same as drills with litters which have for their principal object instruction and training in the proper methods of handling litters and are not classed as precision drills.

## SECTION 1.—SCHOOL OF THE SQUAD

5-1. GENERAL.—The squad normally has a strength of eight men, one of whom is designated as squad leader and another as second in command. The strength may, however, vary as authorized by appropriate Tables of Organization. When the squad leader is absent he is replaced by the second in command. If the second in command is also absent the next senior member of the squad acts as leader, but as far as practicable the squad is kept intact. The normal formation of the squad is a single rank or single file. This permits variation in the number of men composing the squad. The squad in line marches to the left or to the front only for minor changes of position. The squad leader, when in ranks, is posted as the right man of the squad if in line or as the leading man if in column.

5-2. FORMING THE SQUAD.—(a) The command is: FALL IN. At this command, the squad forms in line. On falling in, each man except the one on the left extends his left arm laterally at shoulder height, palm of the hand down, fingers extended and joined. Each man, except the one on the right, turns his head and eyes to the right and places himself in line so that his right shoulder touches lightly the tips of the fingers of the man on his right. As soon as proper intervals have been ob-

tained, each man drops his arm smartly to his side and turns his head to the front.

(b) To form the squad at close intervals, the commands are: 1, AT CLOSE INTERVAL, 2. FALL IN. At the command FALL IN, all fall in as prescribed in paragraph 5-2 (a), except that close intervals are obtained by placing the left hand on the hip, fingers extended downward and joined, thumb along the forefinger, heel of the hand resting against the hip bone near the belt, and the elbow in the plane of the body.

(c) The squad falls in on the right file if the squad leader is not in ranks. If the squad is formed under litters, litters are at once inspected. The squad executes the positions, and movements, as prescribed in Sections 2 and 3 of Chapter IV, all men executing the movements simultaneously.

5-3. To DISMISS THE SQUAD.—The commands are: 1. ATTENTION, 2. SQUAD DISMISSED.

5-4. To COUNT OFF.—The command is: COUNT OFF. At the command COUNT OFF, each man of the squad, except the one on the right flank, turns his head and eyes to the right. The right-flank man calls out, "One." Each man in succession calls out, "Two," "Three," etc., turning his head and eyes to the front as he gives his number. This command may be given whenever it is desired that the men should know their relative positions in the squad.

5-5. **TO ALIGN THE SQUAD.**—(a) If in line, the commands are: 1. **DRESS RIGHT (LEFT)**, 2. **DRESS**, 3. **READY**, 4. **FRONT**. At the command **DRESS** each man, except the one on the left, extends his left arm (or if at close interval, places his left hand upon his hip), and all align themselves to the right. The instructor places himself on the right flank one pace from and in prolongation of the line and facing down the line. From this position he verifies the alignment, ordering individual men to move forward or back as may be necessary. Having checked the alignment, he faces to the right in marching and moves 3 paces forward, halts, faces to the left, and commands: 1. **READY**, 2. **FRONT**. At the command **FRONT**, the arms are dropped quietly and smartly to the side and heads turned to the front.

(b) If in column the command is: **COVER**. At the command **COVER**, men cover from front to rear with 40 inches distance between men.

5-6. **BEING IN LINE AT NORMAL INTERVAL, TO OBTAIN CLOSE INTERVAL.**—The commands are: 1. **CLOSE**, 2. **MARCH**. At the command **MARCH** all men, except the right-flank man, face to the right in marching and form at close interval, as prescribed in paragraph 5-2 (b).

5-7. **BEING IN LINE AT CLOSE INTERVAL, TO EXTEND TO NORMAL INTERVAL.**—The commands are: 1. **EXTEND**,

2. MARCH. At the command MARCH all men, except the right-flank man, face to the left in marching and form at normal interval as prescribed in paragraph 5-2 (a).

5-8. BEING IN LINE, TO MARCH TO THE FLANK.—The commands are: 1. RIGHT (LEFT), 2. FACE, 3. FORWARD, 4. MARCH. The movements are executed as explained in paragraphs 4-6 (a) and 4-9, all men stepping off simultaneously.

5-9. TO MARCH TO THE OBLIQUE.—(a) For the instruction of recruits, the squad being in column or correctly aligned, the instructor causes each man to face half right (left), points out his position, and explains that it is to be maintained in the oblique march.

(b) The squad being in any formation, the commands are: 1. RIGHT (LEFT), OBLIQUE, 2. MARCH. At the command MARCH, given as the right foot strikes the ground, each individual advances and plants the left foot, faces half right in marching and steps off in a direction of  $45^{\circ}$  to the right of his original front. He preserves his relative position, keeping his shoulders parallel to those of the guide (man on right front of line or column), and so regulates his step that the ranks remain parallel to their original front.

(c) The command HALT is given on the left foot when halting from the right oblique, and on the

right foot when halting from the left oblique. At the command **HALT**, given as the left foot strikes the ground, each individual advances and plants the right foot, turns to the front on the ball of the right foot, and places the left foot by the side of the right foot.

(d) To **RESUME THE ORIGINAL DIRECTION**, the commands are: 1. **FORWARD**, 2. **MARCH**. At the command **MARCH**, each individual faces half left in marching and then moves straight to the front.

(e) If at **HALF STEP** or **MARK TIME** while obliquing, the full step is resumed by the commands: 1. **OBLIQUE**, 2. **MARCH**.

(f) To give volume to the command the word "oblique" is pronounced to rhyme with "strike."

5-10. To **MARCH TOWARDS A FLANK WHILE IN MARCH**.—The commands are: 1. **BY THE RIGHT (LEFT) FLANK**, 2. **MARCH**. At the command **MARCH** each man individually executes the movement as prescribed in paragraph 4-17.

This movement is used when a quick movement to the right or left for a short distance is required. Normally the unit is halted, faced in the desired direction, and started forward again by the commands: 1. **FORWARD**, 2. **MARCH**.

5-11. **BEING IN COLUMN, TO CHANGE DIRECTION**.—The commands are: 1. **COLUMN RIGHT (LEFT) (HALF**

RIGHT) (HALF LEFT), 2. MARCH. At the command MARCH, the leading man executes the movement as prescribed in paragraphs 2-16 (a) and (b). The other men in the column execute the same movement successively and on the same ground as the leading man.

5-12. BEING IN LINE, TO TAKE INTERVAL AND TO ASSEMBLE.—(a) To take interval, the commands are: 1. TAKE INTERVAL TO THE LEFT (RIGHT), 2. MARCH. At the command MARCH, the right-flank man stands fast and extends his left arm at shoulder height, palm of the hand down, fingers extended and joined, until the man on his left obtains the proper interval, then he drops his arm. Other men face to the left in marching and step out until they have an interval of two arm's lengths from the man on their right, then halt and face to the front. Each man, except the one on the left who raises his right arm only, extends both arms laterally at shoulder height. Each man, except the right-flank man, then turns his head and eyes to the right and places himself in line so that the finger tips of his right hand touch lightly the finger tips of the left hand of the man on his right. As soon as each man aligns himself at a two arm's lengths interval from the man on his right, he drops his right arm to the side and turns his head and eyes to the front. He drops his left

arm to the side when the man on his left has obtained his proper interval.

(b) To assemble, the commands are: 1. ASSEMBLE TO THE RIGHT (LEFT), 2. MARCH. At the command MARCH, the right-flank man stands fast. All other men face to the right in marching and form at normal intervals as prescribed in paragraph 5-2 (a).

5-13. COLUMN OF TWOS.—When marching small groups, not at drill, the group may be marched in column of twos by forming it in two ranks and giving the commands: 1. RIGHT (LEFT), 2. FACE.

5-14. TO FORM COLUMN OF TWOS FROM SINGLE FILE AND RE-FORM.—(a) The squad being in column, at a halt, to form column of twos, the commands are: 1. FORM COLUMN OF TWOS, 2. MARCH. At the command MARCH the leading man stands fast; the second man in the squad moves by the oblique until he is to the left and abreast of the squad leader with normal interval, and halts; the third man moves forward until behind the squad leader with normal distance and halts; the fourth man moves by the oblique until he is to the left and abreast of the third man with normal interval, and halts; and so on.

(b) The squad being in column of twos, in marching, to re-form single file, the squad is first halted. The commands are: 1. FORM SINGLE FILE FROM THE RIGHT, 2. MARCH. At the command MARCH, the



leading man of the right column moves forward, the leading man of the left column steps off to the right oblique, then executes left oblique so as to follow the right file at normal distance. Remaining twos follow successively in like manner.

## SECTION 2.—SCHOOL OF THE PLATOON

### 5-15. FORMATIONS OF MORE THAN ONE SQUAD.—

(a) The squads form in line, one behind the other, with 40 inches distance between ranks.

(b) Squads are usually arranged to produce a three- or four-rank formation so that by facing to the right the unit will march in column of threes or column of fours depending on the number of squads.

(c) A two-squad unit forms in two ranks and marches in column of twos.

(d) A three-squad unit forms in three ranks and marches in column of threes.

(e) A four-squad unit forms in four ranks and marches in column of fours.

(f) A platoon composed of two sections of two squads each, forms in four ranks and marches in column of fours.

(g) Movements are described herein for column of threes or fours and may be executed by either formation.

(h) When in line, the platoon is aligned as prescribed for the squad in paragraph 5-5. The alignment of each rank is verified by the platoon leader.

(i) The platoon, being in line, takes interval and assembles as prescribed for the squad in paragraph 5-12. This movement may be ordered after ranks are opened for the display of field equipment or for other special purpose. It is not utilized in forming for physical training.

**5-16. COMPOSITION AND FORMATION OF THE PLATOON.**—The platoon consists of platoon headquarters and several squads. Platoon headquarters consists of a platoon leader and one or more assistants. For purposes of drill and ceremonies, a 3-squad or 4-squad formation should be arranged and the size of the squads equalized.

**5-17. POSITION OF INDIVIDUALS.**—(a) The platoon leader takes position 6 paces in front of the center of his platoon when in line. In march formation (column of threes or fours), he marches at the head of his platoon.

(b) The second in command of a platoon takes position on the left of the left man of the rear rank when squads are in line unless otherwise indicated. When squads are in column, he follows the rear man in the right squad. The second in command observes the conduct of the unit, sees that the proper

formation is maintained, and that commands are promptly and properly executed. The platoon guide is posted on the right of the right-flank man of the front rank when in line. In column he takes post in front of the right-flank man. He is responsible for maintaining the proper direction and cadence of march of the platoon.

5-18. TO FORM THE PLATOON.—(a) The command is: FALL IN. At the command FALL IN the first squad forms in line, as prescribed in paragraph 5-2 (a), its center opposite and three paces from the platoon petty officer. The other squads form in rear of the first squad and in the same manner, with 40 inches distance between ranks. Members of the rear squads extend their arms to obtain their approximate intervals, covering the corresponding members in the first squad. The guide places himself as prescribed in paragraph 5-17 (b).

(b) To form with close interval, the commands are: 1. AT CLOSE INTERVAL, 2. FALL IN. At the command FALL IN the movement is executed as prescribed in paragraph 5-18 (a) except that squads form at close interval.

(c) The platoon ordinarily is formed and dismissed by the platoon petty officer.

5-19. TO DISMISS THE PLATOON.—(a) The commands are: 1. ATTENTION, 2. PLATOON DISMISSED.

5-20. **TO MARCH THE PLATOON.**—(a) The normal formation for marching is in column of threes (or fours) with squad columns abreast, squad leaders at the heads of their squads. The platoon in line marches to the left or to the front only for minor changes of position.

(b) To march to the right, the platoon being in line, the commands are: 1. **RIGHT**, 2. **FACE**, 3. **FORWARD**, 4. **MARCH**. This marches the platoon in column of threes (or fours) to the right.

5-21. **GUIDE IN MARCHING.**—Except when otherwise directed, men in ranks keep the proper distance and interval and align themselves on the men towards the flank on which the guide is marching. When it is desired to guide towards the left, the command is: **GUIDE LEFT**. The guide and the platoon leader then change their relative positions.

5-22. **BEING IN COLUMN OF THREES (OR FOURS) AT NORMAL INTERVAL BETWEEN SQUADS, TO MARCH (OR FORM) AT CLOSE INTERVAL.**—(a) The commands are: 1. **CLOSE**, 2. **MARCH**. At the command **MARCH**, the squads close to the center by obliquing until the interval between men is 4 inches. The center squad (or squads) take up the half step until the dress has been regained. The distance, 40 inches, remains unchanged.

(b) If this movement is executed from the halt, the squads close towards the center by executing right or left step until 4-inch intervals are reached. If in column of threes, the first and third squads left and right step two steps. If in column of fours, the second and third squads left and right step one step, the first and fourth squads left and right step three steps.

5-23. BEING IN COLUMN OF THREES (OR FOURS) AT CLOSE INTERVAL BETWEEN SQUADS, TO MARCH (OR FORM) AT NORMAL INTERVAL.—(a) The commands are: 1. EXTEND, 2. MARCH. At the command MARCH the squads open to the right and left from the center by obliquing until the interval between men is one arm's length. The center squad (or squads) take up the half step until the dress has been regained.

(b) If this movement is executed from the halt, the squads execute right or left step until they have secured the proper interval by reversing the procedure explained in paragraph 5-22.

5-24. BEING IN COLUMN OF THREES (OR FOURS), TO CHANGE DIRECTION.—The commands are: 1. COLUMN RIGHT (LEFT), 2. MARCH. At the command MARCH, given as the right foot strikes the ground, the right-flank man of the leading rank faces to the right in marching as prescribed in paragraph 4-16 (a) and

(b), and takes up the half step until the other men of his rank are abreast of him, then he resumes the full step. The other men of the leading rank oblique to the right in marching without changing interval, place themselves abreast of the pivot man, and conform to his step. The ranks in rear of the leading rank execute the movement on the same ground, and in the same manner, as the leading rank.

5-25. BEING IN COLUMN OF THREES (OR FOURS), TO FORM LINE TO THE FRONT.—The commands are: 1. COLUMN RIGHT, 2. MARCH, 3. PLATOON, 4. HALT, 5. LEFT, 6. FACE. Column right is executed as prescribed in paragraph 5-24. The command HALT is given after the change of direction is completed.

5-26. BEING IN ANY FORMATION IN MARCH, TO MARCH TOWARDS A FLANK.—The commands are: 1. BY THE RIGHT (LEFT) FLANK, 2. MARCH. This movement is executed as prescribed for the squad in paragraph 5-10. If the platoon is in column at close (4-inch) intervals, the squads in rear of the squad that becomes the leading squad take up the half-step until they each reach 40 inches distance from the squad ahead. This movement is used only for short distances.

5-27. BEING IN LINE, TO OPEN AND TO CLOSE RANKS.—(a) To open ranks the commands are: 1. OPEN RANKS, 2. MARCH, 3. READY, 4. FRONT. At the command

**MARCH** the front rank takes three steps forward, halts, and executes **Dress Right**. The second rank takes two steps forward, halts, and executes **Dress Right**. The third rank takes one step forward, halts, and executes **Dress Right**. The fourth rank, if any, executes **Dress Right**. The platoon leader places himself on the flank towards which the dress is to be made, one pace from and in prolongation of the front rank and facing down the line. From this position he aligns the front rank. The second and third ranks are aligned in the same manner. In moving from one rank to another, the platoon leader faces to the left in marching. After verifying the alignment of the rear rank, he faces to the right in marching, moves three paces beyond the front rank, halts, faces to the left and commands: 1. **READY**, 2. **FRONT**.

(b) To close ranks the commands are: 1. **CLOSE RANKS**, 2. **MARCH**. At the command **MARCH** the front rank stands fast; the second rank takes one step forward and halts; the third rank takes 2 steps, forward and halts; and the fourth rank, if any, takes 3 steps forward and halts. Each man covers his file leader.

5-28. **TO FORM FOR SHELTER TENTS**.—The platoon being in line, the commands are: 1. **FORM FOR SHELTER TENTS TO THE LEFT (RIGHT)**, 2. **MARCH**, 3. **DRESS RIGHT**

(LEFT), 4. DRESS, 5. READY, 6. FRONT, 7. COUNT OFF.

(a) At the first command the second in command moves to a position on the right of the guide, who is on the right of the right man of the front rank. The messenger takes position on the left of the left man of the rear rank.

(b) At the command MARCH all squads, except the front squad, face to the left in marching and step off. Squad leaders by giving appropriate commands: 1. BY THE RIGHT (LEFT) FLANK, 2. MARCH, and 1. SQUAD, 2. HALT, move their squads into line abreast of the squad(s) already in line.

(c) At the commands: 3. DRESS RIGHT (LEFT), 4. DRESS, 5. READY, 6. FRONT, and 7. COUNT OFF, given by the platoon leader, the entire rank executes these movements as prescribed in paragraphs 5-4, 5-5.

(d) On direction of the platoon leader, the odd numbers mark their position with their left heel, to indicate the position of the front tent pole. Odd and even numbers (Nos. 1 and 2; Nos. 3 and 4; etc.) pitch tents together.

(e) To assemble, the platoon is faced to the right and re-formed from single file into column of threes (or fours) to the right (left) as prescribed in paragraph 5-29 (f). The platoon petty officer and messenger resume their normal posts.



5-29. TO FORM COLUMN OF TWOS AND SINGLE FILE AND RE-FORM.—The platoon may be marched in column of twos or single file by the procedures given next. This is not a precise movement. It is practiced in drill so that when necessary the movement may be executed smoothly and without delay. The change of column is always made from a halt.

(a) The platoon being in column of threes, at a halt, to form column of twos, the commands are: 1. COLUMN OF TWOS FROM THE RIGHT (LEFT), 2. MARCH. At the command MARCH the right two squads march forward; the left squad forms column of twos as prescribed for the squad and then executes COLUMN HALF RIGHT and COLUMN HALF LEFT so as to follow in column the leading squads. Forty-inch distances are maintained.

(b) The platoon being in column of twos, at a halt, to re-form in column of threes, the commands are: 1. COLUMN OF THREES TO THE LEFT (RIGHT), 2. MARCH. At the command MARCH the leading two squads stand fast. The rear squad forms single file from the right as prescribed in paragraph 5-14 (b), and moves to its normal place beside the leading squads by executing COLUMN HALF LEFT then COLUMN HALF RIGHT. It is halted when its leading file is on line with the leading rank of the platoon.

(c) The platoon being in column of fours, at a halt, to form column of twos, the commands are: 1. COLUMN OF TWOS FROM THE RIGHT (LEFT), 2. MARCH. At the command MARCH the right two squads march forward; the left two squads initially stand fast, then follow the leading two squads by executing COLUMN HALF RIGHT and COLUMN HALF LEFT. Forty-inch distances are maintained.

(d) The platoon being in column of twos, at a halt, to re-form in column of fours, the commands are: 1. COLUMN OF FOURS TO THE LEFT (RIGHT), 2. MARCH. At the command MARCH the leading two squads stand fast. The two rear squads move to their normal places by executing COLUMN HALF LEFT then COLUMN HALF RIGHT and are halted when the leading files are on line with the leading rank of the platoon.

(e) To form single file, the platoon being in column of threes (or fours), at a halt, the commands are: 1. COLUMN OF FILES FROM THE RIGHT (LEFT), 2. MARCH. At the command MARCH the right squad of the platoon moves forward. The other squads stand fast initially and then successively follow the leading squad by executing COLUMN HALF RIGHT and COLUMN HALF LEFT. Distances of 40 inches are maintained.

(f) To re-form in column of threes (or fours), the platoon being in single file, at a halt, the com-

mands are: 1. COLUMN OF THREES (OR FOURS) TO THE LEFT (RIGHT), 2. MARCH. At the command MARCH the leading squad stands fast. The other squads move to their normal places by executing COLUMN HALF LEFT, then, at the proper time, COLUMN HALF RIGHT, and are halted when the leading file is on line with the leading rank of the platoon.

Whenever commands are given involving movements of squads in which one squad stands fast, takes up the march, continues the march, or changes formation, the squad leader gives the appropriate commands.

### SECTION 3.—SCHOOL OF THE COMPANY

5-30. GENERAL.—The company consists of a company headquarters and two or more platoons. For close-order drill and ceremonies, company headquarters personnel present are attached to platoons to equalize the strength thereof. Members of the company headquarters are formed for marches or special purposes or as directed by the company commander or higher authority.

5-31. POSITIONS OF THE CHIEF PETTY OFFICER FOR DRILLS AND CEREMONIES.—(a) With the company in line.—At normal distance in rear of the squad leader of the rear squad of the left center or center platoon.

(b) With the company in column of platoons (the platoons being in columns of threes).—At normal distance in rear of the left squad of the rear platoon for drills and ceremonies. For march formation, his position is at normal distance behind the company commander.

(c) With the company in mass formation.—At normal distance in rear of the second in command of the left (or left center) platoon.

(d) The chief petty officer takes post in march formation at normal distance behind the company commander.

5-32. POSITIONS OF THE GUIDON BEARER FOR DRILLS AND CEREMONIES.—(a) With the company in line or in mass formation.—One pace to the rear and 3 paces to the left of the company commander.

(b) With the company in column of threes or fours.—At normal interval to the right of the company commander.

(c) For marches in the field, the guidon is disposed with the company headquarters baggage or as otherwise directed. If carried by the guidon bearer, he takes the position at normal interval to the right of the company commander.

5-33. RULES FOR COMPANY DRILL.—(a) The platoon, rather than the company, is the basic close-order drill unit. For the company, only such for-

mations are prescribed as are necessary for marches, drills, and ceremonies.

(b) Platoon leaders repeat such preparatory commands as are to be immediately executed by their platoons, such as **FORWARD**, and the men execute the movement if it applies to their platoons at the command of execution, such as **MARCH** and **HALT**, given by the company commander. In movements executed in **ROUTE STEP** and **AT EASE**, the platoon leaders repeat the command of execution if necessary. Platoon leaders do not repeat the company commander's commands to **FALL OUT**, etc., nor those commands which are not essential to the execution of a movement by their platoons. In giving commands or cautions, platoon leaders may prefix the numbers of the platoons, as: **FIRST PLATOON, HALT**; or **SECOND PLATOON, FORWARD, MARCH**.

(c) Whenever commands are given involving movements of the company in which one platoon stands fast or continues the march, its platoon leader commands: **STAND FAST**, or cautions, **CONTINUE THE MARCH**, as the case may be.

5-34. **TO FORM THE COMPANY.**—(a) The chief petty officer takes post 9 paces in front of the point where the center of the company is to be, faces that point, and commands: **FALL IN**. At the command **FALL IN** the company forms in three (or four) ranks with

normal interval between men (unless close interval is directed) and 3-paces intervals between platoons.

(b) Each platoon petty officer takes post 3 paces in front of the point where the center of his platoon will be. The platoons form in their proper places under supervision of the platoon petty officers.

(c) The platoon petty officers then command: **REPORT**. Remaining in position, the squad leaders, in succession from front to rear in each platoon, salute and report: "All present," or "——— absent." At the command **REPORT** given by the chief petty officer, the platoon petty officers successively, beginning with the right platoon, salute and report: "All present or accounted for," or "——— men absent."

(d) All platoons having reported, the chief petty officer commands: **POSTS**. The platoon petty officers face about and move by the most direct routes to their positions. The chief petty officer then faces the company commander, salutes, and reports: "Sir, all present or accounted for," or "Sir, ——— men absent," and without command faces about and moves by the most direct route to his former position.

(e) If the platoons cannot be formed in regularly organized squads, the platoon petty officers call the rolls. Each man, as his name is called, answers

"Here." The platoon petty officers then divide the platoons into squads and report as described in paragraph 5-34 (c).

(f) The company commander places himself 12 paces in front of the center of and facing the company in time to receive the report of the chief petty officer. The second in command and those commanding platoons take their posts immediately after the chief petty officer has reported and draw their swords or sabers with the company commander.

(g) In forming the company, all who are required to salute and make a report maintain the position of salute until it is returned.

5-35. TO FORM WITH CLOSE INTERVAL BETWEEN MEN.—The commands are: 1. AT CLOSE INTERVAL, 2. FALL IN. At the command FALL IN the company forms as prescribed in paragraph 5-34, with each platoon forming as prescribed in paragraph 5-18 (b). This formation is used only for roll calls, or where space is limited.

5-36. TO ALIGN THE COMPANY.—The company being in line at a halt, the command is: DRESS RIGHT (CENTER or LEFT). At the command DRESS RIGHT, the platoon leader of the base platoon dresses his platoon immediately. When DRESS CENTER is given, the leader of the center platoon dresses his platoon to the right. Each platoon

leader dresses his platoon towards the center (right or left) of the company as soon as the base platoon or the platoon next towards the base platoon has completed its dress. In mass formation, the commands are given by the company commander, and the alignment of each rank is verified expeditiously by the platoon leader of the base platoon.

5-37. **TO DISMISS THE COMPANY.**—(a) The company being in line at a halt, the company commander directs the chief petty officer: "Dismiss the company." The officers fall out; the chief petty officer moves to a point 9 paces in front of the center of the company, salutes the company commander, faces toward the company, and commands: 1. **ATTENTION**, 2. **DISMISSED**.

(b) Dismissal may also take place by the command: **DISMISS YOUR PLATOONS**. The platoons, being in line at a halt, are then dismissed on direction of the individual platoon leaders to the platoon petty officers. Each platoon petty officer takes post 3 paces in front of the center of his platoon, salutes the platoon leader, faces toward the platoon, and dismisses it as prescribed for the chief petty officer in dismissing the company.

5-38. **PREVIOUS INSTRUCTION APPLICABLE.**—The company marches, executes changes of direction, closes and extends intervals between squads in column of



threes or fours, opens and closes ranks, as in platoon drill.

5-39. BEING IN LINE, TO MARCH TO THE RIGHT.—(a) The company is faced to the right and marched as prescribed for the platoon in paragraph 5-20. The company commander, chief petty officer, and guidon take positions as previously described. For drills and ceremonies, the chief petty officer takes position as prescribed in paragraph 5-31 (d).

The company marches to the left from line only for minor changes of position.

*Mass formations and movements.*

5-40. BEING IN COLUMN OF THREES OF FOURS AT CLOSE INTERVAL, TO FORM COMPANY MASS.—(a) The company being at a halt, the commands are: 1. COMPANY MASS LEFT (RIGHT), 2. MARCH. At the command MARCH the leading platoon stands fast. The rear platoons move to position alongside the leading platoon(s) at 4-inch intervals by executing COLUMN HALF LEFT then COLUMN HALF RIGHT. Each platoon is halted when its leading rank is on line with the leading rank of the platoon(s) already on line. This forms the company in mass, with 4-inch intervals between all men in ranks.

(b) The company being in march, the commands are the same and the movement is executed as given

in paragraph 5-40 (a), except that immediately after the command MARCH, the leading platoon is halted by the commands: 1. PLATOON, 2. HALT, given by its own leader.

5-41. BEING IN COLUMNS OF THREES OR FOURS, TO FORM EXTENDED MASS FORMATION.—The commands are: 1. COMPANY MASS (2, 3, 4, ETC.) PACES LEFT (RIGHT), 2. MARCH. At the command MARCH the movement is executed as described in paragraph 5-40 except that the rear platoons move to position alongside the leading platoon(s) at the intervals ordered by executing COLUMN LEFT and COLUMN RIGHT. Each platoon is halted when its leading rank is on line with the leading rank of the platoon(s) already on line. This formation is used for drills and ceremonies if it is desired to increase the size of the mass in order to present a more impressive appearance. The company in this formation drills in the same manner as for mass formation, maintaining the interval between platoons. Extended mass formation is also utilized in forming the company for inspection.

5-42. BEING IN MASS FORMATION, TO CHANGE DIRECTION.—(a) The commands are: 1. COLUMN RIGHT (LEFT), 2. MARCH, 3. FORWARD, 4. MARCH. The right-flank man of the line of guides and platoon leaders is the pivot of this movement. At the com-

mand MARCH he faces to the right in marching and takes up the half step. Other first-rank men execute RIGHT OBLIQUE, advance until opposite their place in line, execute a second RIGHT OBLIQUE and, upon arriving abreast of the pivot man, take up the half step. Each succeeding rank executes the movement on the same ground and in the same manner as the first rank. All take the full step at the command MARCH, which is given after the entire company has changed direction. This movement is an example of the turn on a moving pivot.

(b) In turning to the left on a moving pivot, each rank dresses to the left until the command MARCH, after which the dress is to the right unless otherwise announced.

(c) The company commander faces to the rear and marches backward, observing the movement, until the change in direction has been completed.

5-43. BEING IN COMPANY MASS, TO FORM COLUMN OF THREES (OR FOURS).—Being at a halt, the commands are: 1. COLUMN OF THREES (OR FOURS), 2. RIGHT PLATOON, FORWARD, 3. MARCH. At the command MARCH the right platoon marches forward. The other platoons follow in column in their normal formation successively by executing COLUMN HALF RIGHT and COLUMN HALF LEFT at the commands of their respective leaders.

*Company inspection.*

5-44. (a) **FORMATION.**—The company forms in line or in an inspection formation of column of platoons as described in paragraphs 5-45 and 8-5 (e).

(b) **PROCEDURE.**—(1) The company being in column of platoons (pars. 5-45 and 8-5 (e)) the company commander commands: **PREPARE FOR INSPECTION.** At this command platoon leaders cause ranks to be opened. They then place themselves, facing to the front, 3 paces in advance of the right flank of their platoons.

(2) Ranks having been opened, the company commander commands: **REST.** He returns sword and then inspects the company. During the inspection, officers, petty officers, and guidon bearers not in ranks come to Attention as the inspecting officer approaches and after being inspected resume the position of Rest. The company commander may direct the chief petty officer to join him and take down notes as he inspects. The company commander, commencing at the head of the column, then makes a minute inspection of the equipment, dress, and appearance of the personnel of the company, and as he approaches each platoon its leader brings the platoon to Attention and salutes. As soon as inspected, the platoon leader returns sword, places himself on the right of the company commander,

and accompanies him throughout the inspection of the platoon.

(3) The inspection is made from right to left in front and left to right in rear of each rank.

(4) Upon completion of the inspection of each platoon, its leader takes his post, faces down the line, and commands: 1. CLOSE RANKS, 2. MARCH, and adds REST after ranks have been closed. He then takes his post in front of the center of the platoon.

(5) The company commander may direct the platoon leaders to make the detailed inspection of the equipment, etc. of the men of their platoons.

5-45. INSPECTION OF PERSONAL FIELD EQUIPMENT WHILE IN RANKS.—This is described in paragraph 8-5 (e).

5-46. INSPECTING OFFICER OTHER THAN THE COMPANY COMMANDER.—Should the inspecting officer be other than the company commander, the latter, after commanding REST, will face the front. When the inspecting officer approaches, the company commander will face about, bring the company to Attention, face to the front and salute. As soon as the company commander has been inspected he faces about, commands REST, returns sword and accompanies the inspecting officer. During the inspection of a platoon its leader marches on the

right of the inspecting officer. The inspection proceeds as previously prescribed.

5-47. INSPECTION OF QUARTERS OR CAMP.—(a) In quarters, headdress and accoutrements are removed and the men stand near their respective bunks; in camp they stand covered in front of their tents but without accoutrements.

(b) If the personal field equipment has not been inspected and its inspection in camp or in quarters is ordered, each man arranges the required articles as prescribed in paragraph 8-5 (f)).

(c) The company commander, accompanied by the other company officers, then inspects the quarters or camp. The chief petty officer precedes the company commander and calls the men to Attention on entering each squad room or on approaching each area; the men stand at Attention but do not salute.

# CHAPTER VI

## MANUAL OF THE ARMY LITTER

### SECTION 1.—GENERAL

6-1. DEFINITION.—A litter is a bed or stretcher so arranged with poles at the sides that the sick and injured may be moved or carried on it by two or more bearers.

6-2. REQUISITES OF A LITTER FOR MILITARY USE.—For satisfactory employment in a military service a litter must be sufficient in size to accommodate, without undue discomfort, individuals whose heights and weights are within the prescribed maximum limits of the service. It should be as light as possible without sacrificing necessary strength and durability, its durability must be commensurate with the rough usage to which it may be subjected in military operations, and it should be collapsible in at least one axis to facilitate handling, storage, and movement to the point of employment. All litters should possess the same dimensions when open.

6-3. DESCRIPTION OF ARMY LITTER.—The litter commonly known as the Army litter, as used in the Navy, is of either the metal-pole or wooden-pole type.

The *metal-pole litter* has an over-all length of about 90 inches, an over-all width of about 22 inches, an over-all height of about 6 inches, and a maximum weight of not more than 22 pounds. It consists of a canvas bed approximately 6 feet long supported by two rigid, tubular, cold-rolled steel poles which are inserted into heavily stitched side loops on the sides of the canvas. The poles have an outside diameter of about 1.250 inches and are equipped with hand-formed grips at each end. Each pole is supported (when the litter is grounded) by two stirrup-shaped, cold-rolled steel feet about 50 inches apart and extending approximately  $4\frac{1}{2}$  inches below the surface of the pole to which they are firmly attached by oval head bolts which also serve to secure the canvas bed to the pole. Two jointed, positive-locking, cold-rolled steel spreader bars, extending between and securely attached to opposite feet, hold the canvas bed taut when they are fully extended.

The folding, metal-pole litters carried in the Supply Catalog of the Medical Department, U. S. Navy, as an item of field equipment, are similar to the rigid metal-pole litter with the exceptions that the poles, feet, and spreader bars are made of aluminum alloy instead of steel, thereby reducing the weight, and they fold at the center in addition to collapsing on the long axis.



The *wooden-pole litter* consists of a canvas bed, 6 feet long and 22 inches wide, made fast to two wooden poles  $7\frac{1}{2}$  feet long and stretched taut by two jointed spreader bars. The ends of the poles form handles, by which the litter is carried. Four iron, stirrup-shaped feet, 4 inches high and  $1\frac{3}{4}$  inches wide, are firmly fixed to the poles. On the left front and right rear handles a half-round iron ring is fixed  $4\frac{1}{2}$  inches from the end; between this and the canvas plays the movable ring of the sling. One pair of slings is permanently attached to each litter. They are made of khaki-colored webbing,  $2\frac{1}{2}$  inches wide, with a leather-lined loop or bight at each end and a metal slide to regulate the length. One loop of the sling passes through a metal swivel, itself attached to the movable ring of the handle. The weight of the wooden-pole litter is approximately 22 pounds.

6-4. IMPROVISATION OF LITTERS.—(a) In the absence of actual litters more or less satisfactory substitutes must be improvised. Among the many things that can be used for this purpose are rifles or poles and overcoats, rifles or poles and blankets, hammocks, and litter-shaped objects such as camp cots, window shutters, doors, benches, ladders, etc., which should be properly padded.

(b) SUGGESTED IMPROVISATIONS.—(1) *Rifles and blanket.* Fold a blanket once from side to side and

lay a rifle transversely upon it across the center so that the butt and muzzle project beyond the edges. Next fold one end of the blanket upon the other, lay a second rifle upon the new center, and fold the free ends of the blanket upon the end containing the first rifle so as to project a couple of inches beyond. To carry this improvised litter the front bearer grasps the barrels of the rifles and the rear bearer holds by the butts, trigger guards up.

(2) *Rifles and overcoat.* Turn an overcoat inside out and button it, keeping the sleeves inside. With the buttons down and beginning at the collar end, insert the barrel of a rifle through each sleeve. To carry this improvised litter the front bearer rolls the tails of the overcoat tightly around the rifle barrels and takes his grasp over them; the rear bearer holds by the butts, trigger guards up. Two or three blouses or jumpers may be utilized in the same manner as, and in lieu of, the overcoat.

(3) *Poles and blanket.* Spread a blanket lengthwise on the ground, lay a pole 7 feet long across the center of the blanket, and fold the blanket over the pole. Lay a second pole 7 feet long across the center of the new fold and fold the blanket over the second pole as over the first. Should it be desirable one half of the blanket may be rolled lengthwise into a cylinder which is placed along the back of

the patient who has been turned carefully on his side. The patient then is turned over upon the blanket and the cylinder unrolled on the other side. A pole 7 feet long is then laid down on each outer edge of the blanket and rolled tightly in it, each a like number of times, until the side of the patient is reached. A shelter-tent half may be utilized in the same manner as, and in lieu of, the blanket.

(4) *Poles and overcoats, blouses, or jumpers.* Turn two overcoats or two or three blouses, or jumpers inside out, keeping the sleeves inside and buttoning the overcoats or blouses. Pass poles through the sleeves in such manner as to place the buttons beneath the litter bed which is formed of the backs of the garments.

(5) *Miscellaneous improvisations.* Rip the bottoms of sacks or bags of any description, if large and strong enough, pass two poles through two, or even three, sacks placed end to end and tie two cross pieces to the poles to keep them apart. Bed-ticks, if not too wide, may be used in the same way by cutting off the four corners and passing poles through the holes so made.

Lash two short poles about 2 feet long across two long poles with bandages or other materials and secure a blanket, shelter-tent half, or poncho over the pole frame. Rope, wire, or similar material may

be woven between the poles of the frame and the network covered with a blanket, pieces of straw matting, rugs, or carpets folded or cut into shape.

Straw mats, leafy twigs, weeds, hay, straw, etc., covered or not with a blanket, make a good bottom over a framework of poles and cross sticks. Ropes or rawhide strips the turns of which cross each other at close intervals make an excellent litter bottom.

## SECTION 2.—INSTRUCTION IN THE USE OF THE ARMY LITTER

6-5. PURPOSE.—The purpose of this section is to provide a guide for instructing personnel in methods of handling litters. The general use of these instructions will secure uniformity in the proper methods of performing a highly important function of medical service, and, at the same time, save valuable training time.

SCOPE.—This section includes proper methods of handling, opening, closing, and strapping litters.

COMMANDS.—*Although not to be considered a precision drill, certain commands should be utilized to facilitate instruction. The use of these commands in actual operations is not contemplated.*

6-6. LITTER SQUAD.—(a) COMPOSITION.—A litter squad, both for purposes of instruction and for actual field employment, ordinarily consists of four bearers. Fewer are unable to withstand the fatigue of

long and frequent carries, except when aided by a wheeled litter carrier or similar device.

(b) DESIGNATION OF BEARERS.—During instruction, each bearer is given a numerical designation. Members of a litter squad, being in line, are numbered consecutively from right to left. No. 1 is the squad leader; in his absence, No. 4 commands; if both Nos. 1 and 4 are absent, No. 3 becomes the squad leader.

(c) DUTIES IN REDUCED SQUADS.—Nos. 3 and 2 being absent, their duties are assumed by Nos. 1 and 4, respectively. No. 1 being absent, No. 4 assumes his duties. In his absence, the duties of No. 4 do not require replacement.

(d) INSTRUCTION IN REDUCED SQUADS.—Under exceptional circumstances, when 2-bearer squads are being instructed, the instruction is as for Nos. 2 and 3 of the 4-bearer squad.

6-7. LITTER, STRAPPED AND CLOSED.—(a) The metal-pole litter is said to be STRAPPED (fig. 5) when it is folded, the canvas doubled smoothly, and secured by the cross straps. The wooden-pole litter is said to be STRAPPED when it is folded, the canvas doubled smoothly on top, the slings placed thereon parallel to each other, and all secured by the cross straps.

(b) The metal-pole litter is said to be CLOSED when it is folded but unstrapped. The wooden-pole litter is said to be CLOSED (fig. 6) when it is folded but



FIGURE 5.—Wooden-pole litter, strapped. (U. S. Army.)



FIGURE 6.—Wooden-pole litter, closed. (U. S. Army.)

unstrapped, the loop of the front sling upon the left handle and the loop of the rear sling upon the right handle, the bight of each sling embracing the opposite handle.

6-8. INSTRUCTION WITH UNLOADED LITTERS.—(a) FORMATION FOR INSTRUCTION.—*Being in its normal formation*, to form and align the unit (squad, platoon, or company) in a single rank for instruction in litter drill, appropriate infantry drill commands are employed. Following completion of the instruction, to return the unit to its normal formation, appropriate infantry drill commands are similarly employed.

(b) FORMATION OF LITTER SQUADS.—*The unit being in single rank facing the front*, to form litter squads, the commands are: 1. COUNT, 2. FOURS. At the command FOURS, all except the right file execute EYES RIGHT, and, beginning with the right file, count *one, two, three, four, one*, etc., each man turning his head and eyes to the front as he counts.

(c) DESIGNATION OF SQUADS.—*Litter squads being formed*, to designate squads by number, the commands are: 1. COUNT, 2. LITTER SQUADS. At the command LITTER SQUADS, No. 1 of each squad except the one on the right, executes EYES RIGHT, and, beginning on the right, counts, in consecutive order, *one, two, three*, etc., until all have counted. Each





FIGURE 7.—Formation for instruction in handling the litter.

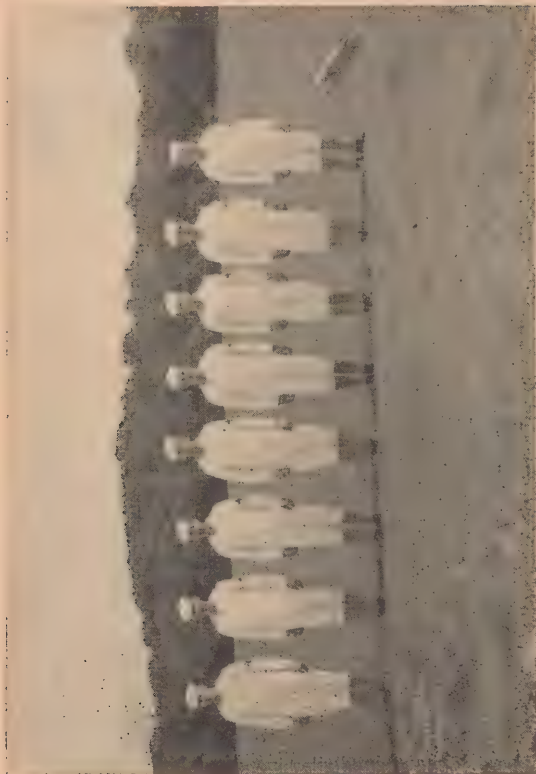


FIGURE 8.—PROCURE, LITTER, first step.

No. 1 turns his head and eyes to the front as he counts.

(d) **PROCUREMENT OF LITTERS.**—*Being in proper formation (fig. 7) and litters being available in the immediate vicinity*, for each litter squad to procure one litter, the commands are: 1. **PROCURE**, 2. **LITTER**. At the command **LITTER**, all Nos. 3 step one pace to the rear (fig. 8), execute **RIGHT (LEFT) FACE**, as required by the location of the litters, and immediately proceed in column of files by the nearest route to the closed or strapped litters. Each takes one litter, places it on the right shoulder, and all promptly return in reverse order to the rear of the line (fig. 9), turn, and step into the line in unison (fig. 10), litters at the vertical. Upon arriving in position, Nos. 3 bring litters to the shoulder (fig. 11). This march should be supervised by a petty officer. It can be executed in double time.

(e) **RETURN OF LITTERS.**—*Instruction having been completed*, to return litters to place of procurement, the commands are: 1. **RETURN**, 2. **LITTER**. This movement is executed in the same manner as *Procure Litter*, except that the litters are carried from, instead of towards, the unit.

(f) **LITTER AT THE SHOULDER.**—In the position “at the shoulder,” the litter is held at a 45° angle, canvas down, upon the right shoulder, the right hand

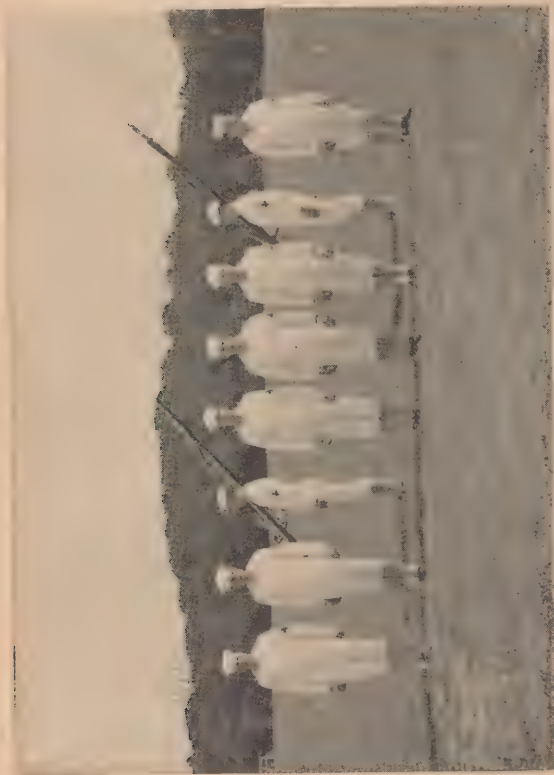


FIGURE 9.—Nos. 3 halted in rear of line.



FIGURE 10.—Nos. 3 stepping into line, litters at the vertical.



FIGURE 11.—PROCURE, LITTER, completed.

grasping the lower right foot of the litter, and the left hand is dropped to the side (fig. 12). In all motions from the shoulder or to the shoulder, the litter should be brought to the vertical position (fig. 13) against the right shoulder, canvas to the rear, right hand grasping right lower foot of the litter, left forearm horizontal, and left hand steadying the litter against the shoulder. The vertical position should be taken automatically by the bearer when resuming his place in line and in any formation or movement in which there may be danger of the handles of the litter striking neighboring men, after which "at the shoulder" is resumed without command.

(g) TO ORDER LITTER.—*Being at the shoulder*, to order litter, the commands are: 1. ORDER, 2. LITTER. At the command LITTER, the litter is brought to vertical position, the lower handles then dropped to the ground outside the right foot, canvas to the rear, right arm extended naturally, right hand grasping the poles, and left hand dropped to the side (fig. 14).

(h) TO SHOULDER LITTER.—(1) *From the order*.—*Being at the order*, to shoulder litter, the commands are: 1. SHOULDER, 2. LITTER. At the command LITTER, the litter is grasped with the left hand (fig. 15) and lifted to the vertical position, then raised until the left wrist is level with the chin, when it



FIGURE 12.—Litter at the shoulder.





FIGURE 13.—Litter at the vertical.



FIGURE 14.—Litter at the order.



FIGURE 15.—SHOULDER, LITTER, first step.

is laid, canvas down, upon the shoulder as described in paragraph 6-8 (f).

(2) *From the carry.*—*Being at the carry* (paragraph 6-8 (i)), to shoulder litter, at the command LITTER, No. 3 advances to his former position in line, at the same time bringing the litter to the vertical, and then to the shoulder position. In this he is aided by No. 2 who lifts his end of the litter to the vertical as he steps backward into his former position in line. Nos. 1 and 4 stand fast.

(i) TO CARRY LITTER.—(1) *Being in line*, litters at the shoulder, to carry litter the commands are: 1. CARRY, 2. LITTER. At the command LITTER, each No. 3 brings his litter to the vertical position, steps backward two paces (fig. 16), drops the upper handles forward and downward until the litter is in horizontal position, canvas up, and grasps the outside handle with his right hand; meanwhile, No. 2 steps directly to the front until he is opposite the front handles, when he grasps the outside handle with his left hand (fig. 17); Nos. 1 and 4 stand fast (fig. 18); guides, if any, align on Nos. 1 and 4.

(2) *Being at the ground*, to carry litter, at the same command, Nos. 3 and 2, using their right and left hands, respectively, stoop, grasp the outside handles (fig. 19) and raise the litter from the ground to the carry.



FIGURE 16.—CARRY, LITTER, from shoulder, first step.

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more, the feet of the patient normally correspond to the foot of the litter.



FIGURE 18.—CARRY, LITTER, completed.

(4) *Unloaded litter in marching.*—In marching, the litter is usually at the carry, but when space

permits or squads are working independently, it may be at the shoulder.



FIGURE 19.—CARRY, LITTER, from ground, first step.



(j) TO GROUND LITTER.—*Being at the carry*, to ground litter, the commands are: 1. GROUND, 2. LITTER. At the command LITTER, Nos. 3 and 2



FIGURE 20.—Litter at the ground.

stoop and lower litter to the ground (canvas up), release the handles, and resume erect position, facing front (fig. 20).

(k) TO CHANGE BEARERS.—(1). *Being at the carry, in marching*, to change bearers, the commands are: 1. CHANGE BEARERS, 2. MARCH. At the command MARCH, Nos. 1 and 4 step to the right rear and left front of the litter, respectively, and grasp the handles relinquished by Nos. 2 and 3, who step to right and left center, respectively.

(2) *Being at the ground, closed*, to execute CHANGE BEARERS, bearers move as at the carry, but Nos. 1 and 4 do not grasp the handles.

(3) *Being at the ground, open*, to execute CHANGE BEARERS, Nos. 1 and 4 assume the rear and front posts, respectively, while Nos. 2 and 3 assume right and left posts, respectively, thus all describing part of a circle in a clockwise direction around the litter.

(l) TO OPEN LITTER.—*Being at the carry, litter strapped*, the commands are: 1. OPEN, 2. LITTER. At the command LITTER, all bearers face the litter (fig. 21); No. 4 supports the litter at the center, canvas up (fig. 22); Nos. 2 and 3 unfasten straps, button straps to their respective studs if it be a litter so equipped, and grasp the left handles with their left hands, leaving the litter suspended longitudinally, canvas to the right (fig. 23); Nos. 2 and 3, assisted by Nos. 1 and 4, extend the braces (fig. 24) and, supporting the litter horizontally, canvas up, lower it to the ground, when all resume their posi-

tions at litter posts. If the litter is closed, but not strapped, so much of this directive as relates to the



FIGURE 21.—OPEN, LITTER, first step.

unfastening of the straps does not apply. If the litter is equipped with slings, Nos. 2 and 3 slip the

free loop of their respective slings upon the ring handle, the bight embracing the opposite handle.



FIGURE 22.—OPEN, LITTER, second step.

(*m*) TO SECURE SLINGS.—(Applicable to litter with slings attached. Unsecured slings tend to drag on the ground, catch on small obstacles, and, at times,

actually interfere with loading ambulances and similar operations. This may be avoided by securing slings.) *The litter being lowered, the commands*



FIGURE 23.—OPEN, LITTER, third step.

are: 1. SECURE, 2. SLINGS. At the command SLINGS, Nos. 2 and 3 slip the loop end of the sling over the ring handle (fig. 25). Each drops the double end

over the free handle and brings it up around the handle, slipping the double end through the sling (fig. 26) and over the end of the handle (fig. 27).



FIGURE 24.—OPEN, LITTER, fourth step.

(n) TO CLOSE LITTER.—*Being open*, the commands are: 1. CLOSE, 2. LITTER. At the command LITTER, Nos. 2 and 3 step outside the right front and left

rear handles, respectively, and face inward; they stoop and, with their right hands, raise the litter by the left handles; they then fold the braces and,



FIGURE 25.—SECURE, SLINGS, first step.

bringing the lower pole against the upper, support the litter at the carry.

(o) TO STRAP THE LITTER.—*The litter being closed,* the commands are: 1. STRAP, 2. LITTER. At the command LITTER, all face the litter; No. 4 sup-

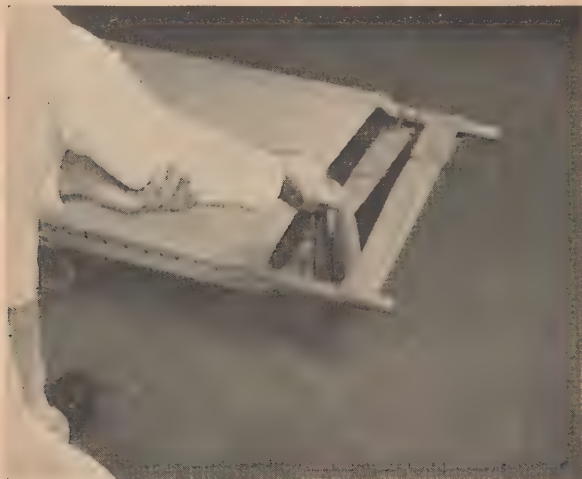


FIGURE 26.—SECURE, SLINGS, second step.

ports the litter at the center (fig. 28); Nos. 2 and 3, assisted by No. 1, fold canvas by doubling it smoothly on top of the poles (fig. 29), release free loops of slings if litter has slings attached, place them on



the canvas, buckles out, and secure all by the cross straps at each end, passing them through the loops of the slings (fig. 30), if any, when all take their posts at the carry. In the field, the litter should be carried strapped or closed, and opened only upon

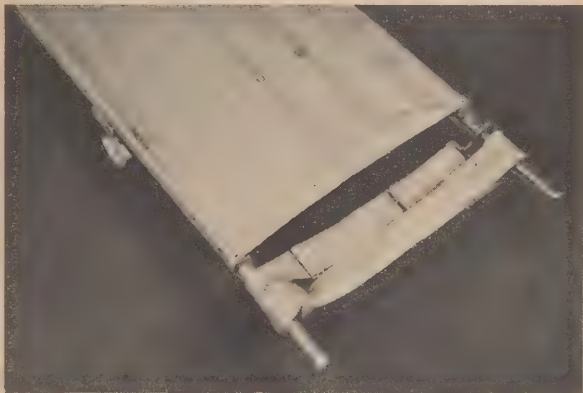


FIGURE 27.—SECURE, SLINGS, completed.

reaching the patient. *Being open*, the litter may be closed and strapped at the one command STRAP, LITTER, in which case the procedures are executed in sequence.

(p) TO BRING LITTER SQUAD INTO LINE.—During litter instruction, it may be desired to move the

squad, without litter, to another point. *Bearers being at posts with litter at the ground*, the commands are: 1. FORM, 2. RANK. At the command RANK,

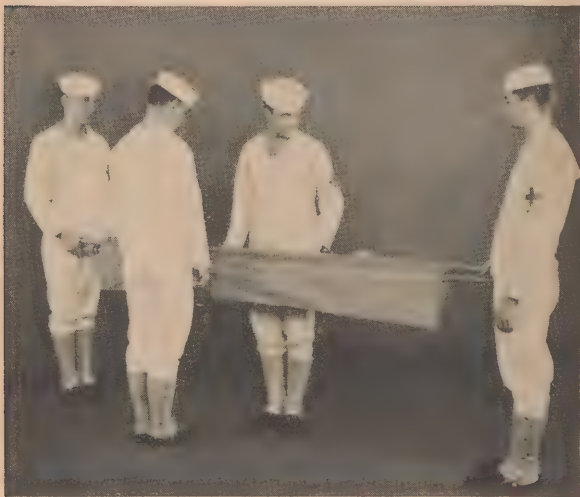


FIGURE 28.—STRAP, LITTER, first step.

No. 2 advances one pace and the remaining bearers move forward and align themselves on him, in regular order (fig. 31).

(q) TO RESUME LITTER POSTS.—Normal bearer posts, with the litter at the ground, may be recovered



FIGURE 29.—STRAP, LITTER, second step.

at any time by the commands: 1. LITTER, 2. POSTS. At the command POSTS, all members of the squad

move by the nearest route and resume posts as shown in figure 20.



FIGURE 30.—STRAP, LITTER, third step.

(r) TO LIFT OPEN LITTER, LOADED OR UNLOADED.—(1) *Being at the ground with bearers at litter posts, to lift the metal pole litter, utilizing the utility straps,*

the commands are: 1. PREPARE TO LIFT, 2. LIFT. At the first command, Nos. 2 and 3 remove their utility straps from their pouches, attach them to their sus-



FIGURE 31.—Squad at FORM. RANK.

penders, then stoop and grasp handles firmly. Meanwhile, Nos. 1 and 4 face litter, stoop and grasp adjacent pole. At the command LIFT, Nos. 2 and 3 arise slowly, assisted in lifting by Nos. 1 and 4,

following which Nos. 1 and 4 adjust the utility straps of Nos. 2 and 3, respectively, then resume their posts. The litter may be lifted without utility straps by prefixing **WITHOUT UTILITY STRAPS** to the command.

(2) *Being at the ground with bearers at litter posts*, to lift the wooden pole litter, utilizing the slings, the commands are: 1. **PREPARE TO LIFT**, 2. **LIFT**. At the first command, Nos. 2 and 3 stoop, slip the slings off the handles, and place them over their shoulders; they then replace the free loop upon its handle and firmly grasp the handles of the litter. At the same time, Nos. 1 and 4 face the litter, stoop, and grasp the adjacent pole (fig. 32). At the command **LIFT** all lift the litter, arising slowly until erect. No. 4 then advances to the side of No. 2 and No. 1 steps backward obliquely to the side of No. 3, and after adjusting slings, lengthening or shortening as necessary to level the litter, resume their posts (fig. 33). The litter may be lifted without slings by prefixing **WITHOUT SLINGS** to the command.

(s) **TO MARCH FORWARD**.—*Being at the lift*, the commands are: 1. **FORWARD**, 2. **MARCH**. At the command **MARCH**, No. 2 steps off with the left foot, No. 3 with the right, both taking short, sliding steps of about 20 inches, to avoid jolting and to secure uniform motion of the litter. Nos. 1 and 4 step off with the left foot, employing the normal pace at a cadence to conform with the progress of Nos. 2 and 3.



FIGURE 32.—Squad at PREPARE TO LIFT, with slings.



FIGURE 33.—Litter lifted, with slings.



(t) TO LOWER LITTER.—*Being at the lift*, the commands are: 1. LOWER, 2. LITTER. At the command LITTER, Nos. 2 and 3 slowly lower litter to the ground, disengage utility straps from litter handles, and resume erect position. If the litter is equipped with slings, Nos. 2 and 3, after lowering litter, seize the free loop and remove the bight of their respective slings from their shoulders, place loops upon ring handles, the bights embracing opposite handles, and resume erect position. The open litter should be lifted and lowered slowly without jerks, both ends simultaneously, the rear bearer moving in accord with the front bearer so as to maintain a horizontal canvas. The open litter, unloaded, for purposes of instruction should be handled as a loaded litter, and as soon as the men are familiar with the handling of the unloaded litter, instruction should be given with the loaded litter.



## CHAPTER VII

### TRANSPORTATION OF SICK AND INJURED

#### SECTION 1.—TRANSPORTATION WITH ARMY LITTER

7-1. GENERAL.—(a) PATIENTS FOR PURPOSES OF INSTRUCTION.—For purposes of instruction with loaded litters, certain men are designated “patients.” To make the instruction more realistic and to instruct in the handling of different types of injuries, “patients” should wear bandages and splints to simulate actual disabilities. In early periods of instruction, the “patients” will be placed on the ground at suitable intervals near the line of litters, first with the heads and later with the feet toward the line. As the instruction progresses, the positions may be varied and, lastly, dispersed or concealed in such positions as they would occupy on a battlefield. When “patients” are loaded on litters, their arms and accoutrements are carried by Nos. 1 and 4 or placed on the litter.

(b) ARRANGEMENT FOR INSTRUCTION.—Several squads may be instructed by the same individual at the same time, or each squad may be instructed separately by an instructor or by the squad leader (No. 1). In the

latter case squad leaders assume charge at a directive by the instructor or the unit commander. At the signal for assembly the squads form in line, lower litters, and come to rest. The "patients," if still on the litters, are then divested of dressings and splints, and resume their posts. Further movements are performed as directed by the instructor.

(c) GENERAL RULES FOR MOVING PATIENTS.—(1) In moving a patient, either with or without the litter, every movement should be made deliberately and as gently as possible, care being taken not to jar the injured part. The command STEADY shall be used to prevent undue haste and other irregularities.

(2) The rear bearer should watch the movements of the front bearer and time his own with them, so as to insure ease and steadiness of action.

(3) As a rule, the patient should be carried on the litter feet foremost, but in going uphill or up stairs his head should be in front.

(4) In case of fracture of the lower extremities, he is carried uphill or up stairs (or ladders) feet foremost and downhill head foremost, to prevent the weight of the body pressing upon the injured part.

(5) In passing obstacles and ditches, the litter must be kept level at all times.

7-2. TO LOAD AND UNLOAD LITTER.—(a) POSITION FOR LIFTING PATIENT.—The patient having been lo-

cated, the general nature of his wounds determined, and the litter being open and available, to place bearers in proper position to lift patient, the commands are: 1. RIGHT (LEFT) SIDE, 2. POSTS. At the command POSTS, bearers take position as follows: No. 2 at the right (left) ankle; No. 3 at the right (left) shoulder; Nos. 1 and 4 at the right (left) and left (right) hips, respectively, all facing the patient (fig. 34).

(b) TO LIFT PATIENT AND PLACE LITTER IN POSITION.—The bearers being at posts, to lift patient preparatory to placing him on the litter, the commands are: 1. LIFT, 2. PATIENT. At the command LIFT, all bearers kneel on knees nearest the patient's feet; No. 2 passes both forearms under the patient's legs, carefully supporting the fracture, if there is one; Nos. 1 and 4 place their arms under the small of the back and the thighs, not locking hands; No. 3 passes one hand under the patient's neck to the farther armpit, with the other supporting the nearest shoulder (fig. 35). At the command PATIENT, all lift together, slowly and carefully, and place the patient upon the knees of the three bearers on the same side (fig. 36). As soon as he is firmly supported there, the bearer on the opposite side (No. 1 or 4) relinquishes his hold, passes quickly by the nearest route to the litter which he takes up by the middle,

one pole in each hand, and, returning rapidly, places it under the patient and against the ankles of the other three bearers (fig. 37).



FIGURE 34.—Squad at LEFT SIDE, POSTS.

(C) TO LOWER PATIENT ON LITTER.—The patient being on the knees of three bearers, and the litter in proper position to receive the patient, the commands are: 1. LOWER, 2. PATIENT. At the command



FIGURE 35.—Squad at LIFT.

LOWER, the free bearer (No. 1 or 4) resumes his former kneeling position opposite the other three bearers and prepares to assist in lowering the patient. At the command PATIENT, the patient is lowered gently upon the litter, made as comfortable

as possible, then without further orders all bearers rise and resume their positions at litter posts.

(d) TO UNLOAD LITTER.—The patient being on the litter, to unload litter, the same commands are given



FIGURE 36.—First step after the command PATIENT.

and the actions of the bearers are the same as shown in paragraphs 7-2 (a) and (b), with the exception that after the patient has been lifted to the knees of the three bearers, the free bearer removes the





FIGURE 37.—Litter being placed beneath the patient.

litter from beneath the patient instead of placing it under him.

7-3. TO LOAD AND UNLOAD LITTER WITH THREE BEARERS.—In the absence of one man from the litter squad, No. 3 or 2 is replaced by No. 4 or 1, respectively, while Nos. 1 and 4 replace each other. With three bearers, the litter is placed as usual and, at the prescribed commands, the bearers take their proper positions. The patient, having been lifted by the three bearers, is supported on the knees of the two on one side, while the third (No. 1 or 4) places the litter in position (fig. 38). In like manner, the patient is lowered on the litter (fig. 39). To unload the litter, the maneuvers are reversed.

7-4. TO LOAD AND UNLOAD LITTER WITH TWO BEARERS.—(a) WITH BEARERS ON THE SAME SIDE.—At the command RIGHT (LEFT) SIDE, POSTS, Nos. 2 and 3 take positions at patient's right (left) thigh and shoulder, respectively (fig. 40). At the command LIFT, the bearers kneel on knees nearest the patient's feet; No. 2 passes his arms beneath the patient's hips and knees; No. 3 passes his arms beneath the patient's shoulders and small of his back (fig. 41). At the command PATIENT, they lift together, raising the patient upon their knees, then, readjusting their holds, rise to their feet and carry patient to the side of the litter. At the command



FIGURE 38.—Three bearers loading litter.



FIGURE 39.—Three bearers lowering patient on litter.

LOWER, PATIENT, the bearers kneel and place the patient on their knees (fig. 42), stoop forward and place him on the litter (fig. 43), then rise and as-



FIGURE 40.—Two bearers at LEFT SIDE, POSTS.

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FIGURE 41.—Position of two bearers at preparatory command LIFT (bearers on same side).

sume the position of litter posts without command. To unload, posts are taken in the same way, at the same commands.

(b) WITH BEARERS ON OPPOSITE SIDES.—In case the patient is conscious and able to cooperate in the

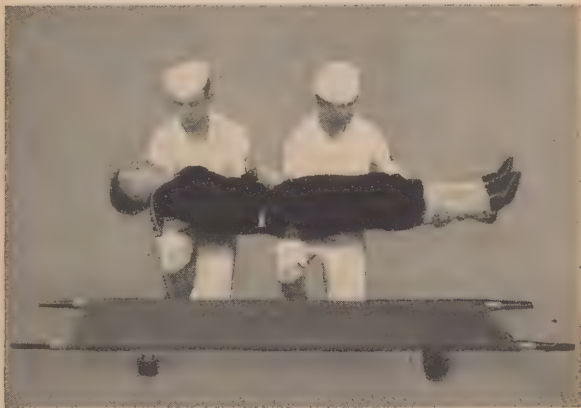


FIGURE 42.—Two bearers at command PATIENT (bearers on same side).

movement, a method whereby the bearers take positions on opposite sides of the patient may be employed. To carry out this movement the commands are: 1. BOTH SIDES, 2. POSTS. At the command

POSTS, Nos. 2 and 3 take positions at the patient's right and left hips respectively, facing the patient (fig. 44). At the command **LIFT**, bearers kneel on the knees nearest the patient's feet, raise him to a sitting position, and pass their arms around his back and



FIGURE 43.—Two bearers placing patient on litter (bearers on same side).

under his thighs, locking hands. The patient, if able, clasps his arms around the bearers' necks (fig. 45). At the command **PATIENT**, they lift the patient, both rising together, and carry him to the center of the litter (fig. 46). At the command





FIGURE 44.—Two bearers at BOTH SIDES, POSTS.

LOWER, PATIENT, they stoop and lower the patient upon the litter in sitting position (fig. 47). The patient releases his hold on the bearers' necks and



FIGURE 45.—Two bearers ready to lift patient (bearers on opposite sides).

both bearers then lay him flat upon the litter, head toward No. 3, after which they take the position of litter posts without command. Unloading is performed, in reverse order, at the same commands.



FIGURE 46.—Two bearers ready to lower patient (bearers on opposite sides).

7-5. TO LOAD AND UNLOAD BACK CASES.—To avoid aggravating the condition of patients with actual or



FIGURE 47.—Two bearers placing patient on litter (bearers on opposite sides).

suspected back injuries, the procedure outlined next shall be followed, taking special care in spine cases.

(a) TO PLACE THE PATIENT FACE DOWN.—The patient being flat on his back, a blanket rolled or folded lengthwise to two-thirds its normal width is placed alongside the patient, the roll or fold in close proximity to his body (fig. 48). To place the patient face down, the commands are: 1. ROLL, 2. PATIENT. At the command ROLL, No. 2 kneels at the patient's feet, firmly grasping the patient's ankles; No. 3 kneels at the patient's head, hands grasping the patient's chin and occiput (back of head). No. 1 kneels by the side of the patient, opposite the blanket, while No. 4 places an open litter in close proximity, and prepares to assist No. 1. At the command PATIENT, Nos. 2 and 3 exert moderate traction, while Nos. 1 and 4 gently roll the patient over on the blanket, face down, arms extended over his head, forearms supporting his head (figs. 49 and 50).

(b) TO PLACE PATIENT ON LITTER.—The commands are: 1. LIFT, 2. PATIENT, and 1. LOWER, 2. PATIENT. At the command LIFT, No. 2 grasps the lower end of the blanket, No. 3 the left half of the upper end and the upper half of the left side, and No. 1 grasps the right half of the upper end and the upper half of the right side. At the command PATIENT, Nos. 1, 2, and 3 lift the blanket and patient, while No. 4 places the open litter beneath the patient (fig. 51). At the commands LOWER, PATIENT, Nos. 1, 2, and 3, as-

sisted by No. 4, lower the patient gently down on the litter.

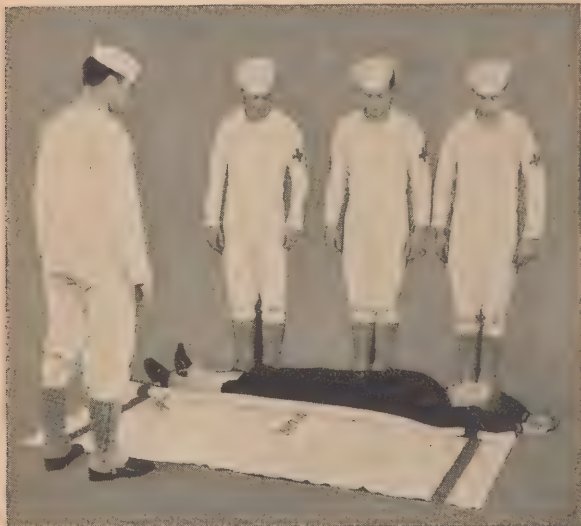


FIGURE 48.—Rolled blanket alongside back case.

(c) TO UNLOAD PATIENT FROM LITTER.—To unload the patient from the litter, the same maneuvers, at the same commands are executed in reverse order.

7-6. TO CARRY LOADED LITTER BY FOUR BEARERS.—If it is desired that the four bearers carry the loaded litter, while marching, the commands are: 1. BY FOUR BEARERS, 2. CARRY, 3. LITTER. At the command



FIGURE 49.—Rolling back case onto blanket.

LITTER, No. 1 steps backward to the right rear, No. 4 forward to the left front, and each grasps the handle nearest him, relinquished by Nos. 2 and 3, respectively, who, retaining their grasps on the other

handles, move to the outside (fig. 52). Normal positions are resumed by the command LITTER, POSTS.

7-7. TO PASS OBSTACLES.—(a) GENERAL.—Obstacles

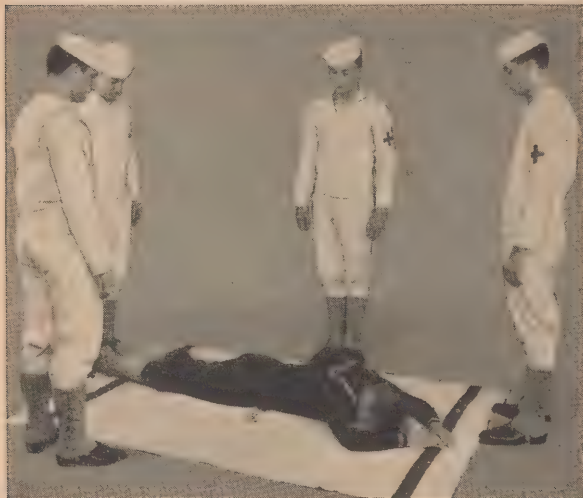


FIGURE 50.—Back case face down on blanket.

include fences, walls, cuts, ditches, running streams, or other natural or artificial impediments. Obstacles should be avoided when feasible, otherwise



they must be surmounted. As orders for surmounting separate obstacles are neither necessary nor practicable, and flexibility in the execution of orders

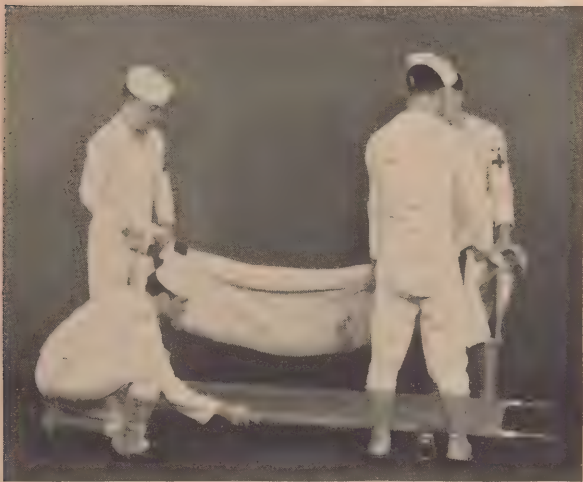


FIGURE 51.—Placing back case on litter.

concerning obstacles must be maintained, common sense dictates the details of action best suited to the situation with which the bearers may be confronted.



FIGURE 52.—Four bearers carrying loaded litter.

(b) TO PASS MINOR OBSTACLES.—For crossing wide, shallow streams, rough or cultivated ground, or similar obstacles, the command is **OBSTACLE**. At this command, Nos. 1 and 4 close in, grasp the centers of the adjacent poles, and give support until the obstacle has been surmounted (fig. 53), then they resume their posts without command.

(c) TO PASS MAJOR OBSTACLES.—To pass over fences, ditches, and similar obstacles, when Nos. 2 and 3 must entirely release the litter to cross such obstacle, the orders are: 1. **OBSTACLE**, 2. **MARCH**. At the command **OBSTACLE**, Nos. 1 and 4 move as outlined in paragraph 7-2 (b). At the command **MARCH**, No. 2 relinquishes his grasp on the front handles, removes the slings from the shoulders, and places them on the litter (or disengages the utility straps), and crosses the obstacle (fig. 54). The litter being advanced by the other three bearers, No. 2 grasps the front handles and, after further aiding in advancing the litter, assists No. 3 in steadying it while Nos. 1 and 4 cross the obstacle (fig. 55). The litter is then lifted over and across the obstacle by Nos. 1, 2, and 4, while No. 3 crosses and resumes his grasp on the rear handles. Nos. 1 and 4, after assisting Nos. 2 and 3 in adjusting slings, if any, resume their posts without command.

(d) TO SURMOUNT OBSTACLES OVER 5 FEET HIGH.—  
The squad being in position of by four bearers,  
carry, litter, to surmount an obstacle over 5 feet



FIGURE 53.—Carrying litter over minor obstacle.

high, the commands are: 1. RAISE, 2. LITTER. At the command LITTER, the litter is raised carefully to the level of the obstacle and advanced until the

front feet of the litter have cleared, or become well anchored on, the obstacle (fig. 56); Nos. 2 and 4 then clear the obstacle, assist in advancing the litter

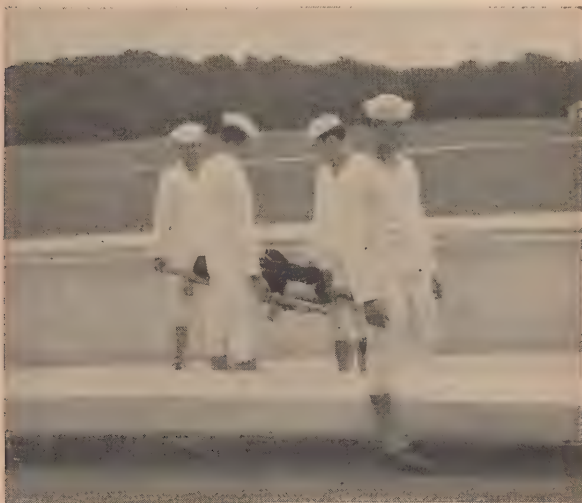


FIGURE 54.—Crossing low obstacle, first step.

to the rear feet, then steady it while Nos. 1 and 3 clear the obstacle and resume their grasp on the

rear handles. Upon clearing the obstacle the litter is lowered to its former level without command.

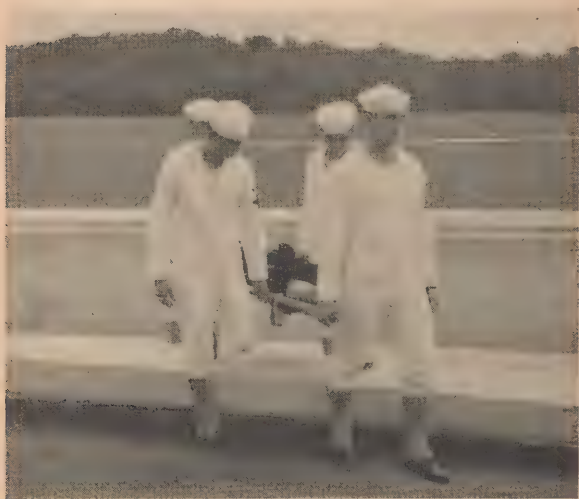


FIGURE 55.—Crossing low obstacle. second step.

7-8. TO CARRY LOADED LITTER UP OR DOWN STAIRS (OR LADDERS).—(a) UP STAIRS CARRY.—Normally a loaded litter is carried up stairs head first. The litter is marched to the foot of the stairs in the



FIGURE 56.—Surmounting obstacle over 5 feet high.

usual manner, wheeled about, and halted (fig. 57). To negotiate the stairs, the commands are: 1. PREPARE FOR STAIRS, 2. MARCH. At the command PREPARE FOR STAIRS, Nos. 1 and 4 face inward, advance to the center of the litter, and support it by grasping a pole with both hands; Nos. 2 and 3 slip free loops of slings off handles (or disengage utility straps), face about, and again grasp the handles (fig. 58); No. 4 then steps to the handle nearest him, at the foot of the litter, which he grasps firmly with both hands (fig. 59), while No. 2 grasps the opposite handle. At the command MARCH, the litter is carried upward by Nos. 2, 3, and 4 (fig. 60), the rear bearers being responsible for maintaining the level of the litter. No. 1 falls out, accompanies the litter, and renders assistance as required. When only three bearers are present, the litter must be lowered before the first command. After the stairs have been negotiated, normal positions are resumed by the command LITTER, POSTS. Or, if only three bearers be present, the litter must be lowered before resuming normal positions.

(b) DOWN STAIRS CARRY.—Normally a loaded litter is carried down stairs feet first. The loaded litter is carried to the head of the stairs in the usual manner and halted. At the command PREPARE FOR STAIRS, No. 4 advances to the left front handle, which he





FIGURE 57.—Up stairs carry, first step.



FIGURE 58.--Up stairs carry, second step.



FIGURE 59.—Up stairs carry, third step.



FIGURE 60.—Up stairs carry, fourth step.



FIGURE 61.—Down stairs carry.

grasps firmly with both hands, while No. 2 grasps the opposite handle (fig. 61). At the command MARCH, the litter is carried downward, Nos. 2 and 4 keeping the litter as nearly level as possible, No. 3 aided by No. 1, carefully observing the patient to insure no untoward incident occurs during the descent. Upon reaching the foot of the stairs, normal positions are resumed by the commands LITTER, POSTS.

(c) WITH FRACTURES OF THE LOWER EXTREMITY.—When the patient being transported has a fracture of the lower extremity, or if for any reason it be desired to carry the patient up stairs feet first, or down stairs head first, the bearers are reversed, in the former case No. 2 becoming the front bearer, in the latter, No. 3.

## SECTION 2—TRANSPORTATION WITH NAVY LITTER

7-9. GENERAL.—The metal litter known as the Navy litter and commonly spoken of as the modified Stokes splint stretcher, is used principally for transporting the sick or injured on board ship, from ship to ship, from ship to shore or vice versa, and by airplane. For moving large numbers of sick or injured by air it may, however, be preferable to use the Army litter.

The Navy litter (fig. 62) is essentially a metal basket the lower half of which is divided to form

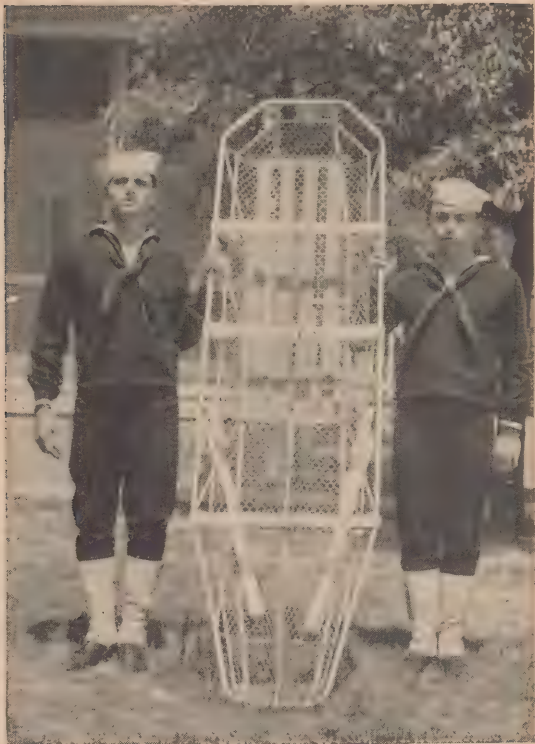


FIGURE 62.—The Navy litter.



FIGURE 63.—Loaded Navy litter (tilted).



two compartments that conform, in general, to the lower extremities of a patient. Its chief advantage is the security afforded a patient carried in it, especially when the litter is tilted (fig. 63). This litter is approximately 7 feet long, 23 inches wide and 8 inches deep, weighs about 20 pounds, and it is required to be so constructed as to safely carry a load of at least 500 pounds when suspended by either two-point or four-point suspension by lines attached to the rails.

The frame of the Navy litter is made of steel tubing and consists of a top rail and bottom runners, with cross ribs, diagonal braces, and longitudinal ridge tube separating the two leg gutters, and a side rail and supporting struts. Within the frame is a poultry-wire net lining cut and shaped to conform to the inside contour of the litter and secured to the side rail, thereby leaving the top rail available for use in handling or carrying. The trunk section of the litter has a rack or bottom of four longitudinal wood slats resting on the cross ribs and bolted to two wood end pieces supported on the runners in such manner that the rack bottom will not slip when the litter is suspended vertically.

To the top rail of the litter are attached five cotton-webbing straps, each 66 inches long and provided with a buckle of the quick-release type. Two

of these straps can be used as stirrup slings for the feet or as side slings passing under the perineum to support the patient when the litter is in a perpendicular position; the others are used to secure the patient in the litter.

The Navy litter can be carried by two, three, or four bearers and can be pushed or pulled along on the runners at the foot by one bearer supporting it at the head (fig. 64). The bottom runners permit its use as a sled in passing along a passageway or up or down a ladder or a plank in a hatchway between decks, stairs in a building, etc. When suspended at its head from a tackle the loaded litter can be raised or lowered in a perpendicular position with little or no discomfort to the patient, and when suspended at four points from a tackle it can be safely raised or lowered in a horizontal position.

7-10. HANDLING.—To use the Navy litter effectively and in order that they can instruct others in its use it is essential that hospital corpsmen be trained in the methods of handling it. The training required can be best obtained through drill in the actual handling of the litter and in its loading and unloading, and must be given for a long enough period of time to develop proficiency and uniformity in the proper methods of handling the litter. Drill with the Navy litter is not to be considered a precision



FIGURE 64.—Navy litter handled by one bearer.

drill, and should be given only to facilitate instruction in its use.

Instruction or drill in handling the unloaded Navy litter is not necessary for the reason that it would be a duplication of the instruction in the use of the Army litter. Instruction in handling the Navy litter may be begun with the litter unloaded and many of the formations and commands in Section 2 of Chapter VI will be found to be suitable for that purpose.

The paragraphs that follow contain instructions for handling the loaded Navy litter. Four bearers should be used in loading and unloading the litter but three may be used if four are not available. Loading and unloading with two bearers is not recommended. The commands given in these paragraphs may or may not be used in the handling of actual patients. For purposes of drill in loading and unloading the litter certain personnel must be designated as patients and directed to lie down at various places.

#### *Four Bearers.*

7-11. DESIGNATION OF BEARERS.—During instruction with four bearers each bearer takes position and executes the movements of the drill in accordance with the numerical designation given to him. The numbers and position of the bearers are as follows: Number 1 at center of right side of litter, Number

2 at foot of litter, Number 3 at head of litter, and Number 4 at center of left side of litter.

7-12. THE LITTER BEING LOWERED, TO LOAD NAVY LITTER.—(a) The patient having been located, the commands are: 1. RIGHT (LEFT) SIDE, 2. POSTS. At the command POSTS, No. 1 bearer takes position at the patient's right (left) hip, No. 2 at the right (left) ankle, No. 3 at the right (left) shoulder, and No. 4 at the left (right) hip, all facing the patient (see fig. 34).

(b) TO LIFT PATIENT AND PLACE LITTER IN POSITION.—The bearers being in position to lift patient preparatory to placing him in the litter, the commands are: 1. PREPARE TO LIFT, 2. LIFT. At the command PREPARE TO LIFT, all bearers face towards the patient and kneel on the knee nearest his feet; Nos. 1 and 4 pass their arms under the small of the back and thighs of the patient, not locking hands; No. 2 passes both forearms under the patient's legs, carefully supporting the fracture if there be one; and No. 3 passes one hand under the patient's neck to the farther armpit and supports the nearer shoulder with the other. At the command LIFT, all bearers lift together, slowly and carefully, and place the patient upon the knees of the three bearers on the same side (see fig. 36). As soon as the patient is firmly supported there, the bearer on the opposite side (No. 1

or 4) relinquishes his hold, rises, and passes quickly by the shortest route to the litter, which he picks up by the middle and, returning rapidly, places it under the patient and against the other bearers' lower shins (fig. 65). He then rises and stands fast in his position.

(c) TO PLACE PATIENT IN LITTER.—The patient being on the knees of three bearers and the litter being in proper position to receive him, to place the patient in the litter the commands are: 1. LOWER. 2. PATIENT. At the command LOWER, the free bearer (No. 1 or 4) stoops or kneels and prepares to assist the other bearers in lowering the patient. At the command PATIENT the body of the patient is lowered gently and carefully into the litter, the legs being supported at an easy angle above the ridge separating the gutters. The free bearer then places himself opposite the No. 2 bearer, kneels, and assists in lowering the patient's legs into the gutters. In case one leg is injured the sound leg is lowered first, and in all cases the legs should be lowered after the body. After securing the patient in the litter the bearers resume their position at right (left) side, posts without command. The patient being in the litter, all bearers assist in securing him with the canvas straps provided, No. 3 securing the strap over the thorax, No. 2 securing the strap over the



FIGURE 65.—Navy litter being placed beneath patient.

lower extremities, and Nos. 1 and 4 securing the straps, on each side of the litter, used as stirrup slings for the feet or as side slings passed under the perineum if the patient is unconscious or has both legs injured. The fifth strap is used where necessary by the bearer most conveniently located to apply it.

When immobilization of any part of the body of the patient is necessary, the bearer nearest the part to be immobilized performs that duty, using bandages, etc., as required. In case the patient is unconscious or both legs are injured, a bandage should be passed behind the neck, over the shoulders, and under the arms, and secured to the wire mesh.

7-13. TO CARRY LOADED NAVY LITTER.—(a) Preparatory to lifting and carrying or marching with the loaded Navy litter the bearers take positions at the head and foot of the litter. To take those positions the commands are: 1. LITTER, 2. POSTS. At the command POSTS, No. 4 faces left and steps to the foot of the litter opposite No. 2 who has faced right, No. 3 steps to the left side of the head of the litter and faces right opposite No. 1 who has faced left, stepped to the head of the litter, and faced about. The bearers being at litter posts, to carry loaded Navy litter the commands are: 1. PREPARE TO LIFT, 2. LIFT. At the command PREPARE TO LIFT, all bearers stoop and seize the top rail, Nos. 4 and 3 with



their right hands, Nos. 2 and 1 with their left hands. At the command **LIFT** all rise slowly and lift the loaded litter (fig. 66).

(b) **TO MARCH FORWARD.**—Being at the lift to march forward with the loaded litter the commands are: 1. **FORWARD**, 2. **MARCH**. At the command **MARCH** Nos. 2 and 4 step off with the left foot, Nos. 1 and 3 with the right, all bearers taking short, sliding steps of about 20 inches, to avoid jolting and to secure uniform motion of the litter.

(c) On approaching a doorway too narrow for the regular formation to pass through, the bearers automatically shift positions as follows: No. 4 releases his hold and assists No. 2 to shift in front of the foot of the litter which he grasps with both hands; No. 4 precedes the litter through the doorway and Nos. 2 and 4 resume their normal positions as soon as practicable; then No. 3 releases his hold and assists No. 1 to shift behind the head of the litter which he grasps with both hands, No. 3 follows the litter through doorway and Nos. 1 and 3 resume their normal positions as soon as practicable.

(d) **TO LOWER LOADED NAVY LITTER.**—Being at the lift, to lower loaded litter, the commands are: 1. **LOWER**, 2. **LITTER**. At the command **LITTER**, all bearers slowly lower litter to the ground and resume erect position without command.



FIGURE 66.—Four bearers carrying loaded Navy litter.

7-14. THE LITTER BEING LOWERED, TO UNLOAD NAVY LITTER.—(a) The bearers being at litter posts, to unload Navy litter the commands are: 1. RIGHT (LEFT) SIDE, 2. POSTS. At the command POSTS the bearers take positions as for loading the litter and release the canvas straps and bandages, if any.

(b) TO LIFT PATIENT FROM LITTER AND REMOVE LITTER.—The bearers being in position to lift the patient from the litter, the commands are: 1. PREPARE TO LIFT, 2. LIFT. At the command PREPARE TO LIFT, No. 4 (or 1) passes to a point opposite No. 2 and all bearers face towards the patient and kneel on the knees nearest his feet; Nos. 4 (or 1) and 2 raise the patient's legs from the gutters of the litter, No. 2 passes both forearms under the patient's legs, carefully supporting the fracture if there be one, and No. 4 (or 1) relinquishes his hold, rises, and then kneels at the patient's left (right) hip; Nos. 1 and 4 pass their arms under the small of the back and thighs of the patient, not locking hands; and No. 3 passes one hand under the patient's neck to the farther armpit and supports the nearer shoulder with the other. At the command LIFT, Nos. 1, 4, and 3 raise the body of the patient from the litter and place him on the knees of the three bearers on the same side. As soon as the patient is firmly supported there, the free bearer (No. 4 or 1) removes the litter, and then assists the

other three bearers to rise to a standing position with the patient in their arms.

(c) The patient being in the arms of the three bearers, with the fourth bearer assisting where necessary, he may be placed on a bed, operating table, cot, another litter, etc., as directed.

7-15. TO HOIST LOADED NAVY LITTER THROUGH A HATCHWAY WITH LADDER UNSHIPED.—After the loaded Navy litter has been slowly lowered to the deck in the position best adopted for hoisting, Nos. 1 and 3 make their way to the deck above and send down a rope's end which is attached by No. 2 or 4 to the top rail, in the center, at the head of the litter. At the proper time Nos. 1 and 3 pull on the rope from the deck above. As soon as the head begins to rise Nos. 2 and 4 take hold of the foot of the litter on their respective sides, keeping it as nearly in a horizontal position as possible while assisting in lifting. When the head of the litter can be reached with the hands from the deck above, the Nos. 1 and 3 draw the litter over the coaming of the hatchway until the foot of the litter rests there, then the Nos. 2 and 4 make their way to the deck above. No. 1 or 3 unbends the rope's end and all bearers resume their positions at Carry Litter. Only such commands as are essential in accomplishing this movement need be given.

7-16. TO LOWER LOADED NAVY LITTER THROUGH A HATCHWAY WITH LADDER UNSHIPED.—The foot of the loaded litter is lowered to the coaming of the hatchway, and Nos. 2 and 4 release their holds and assist in sliding the litter over the coaming until it rests on its middle. Then one of the free bearers, either No. 2 or 4, fastens the rope's end to the top rail, in the center, at the head of the litter while Nos. 1 and 3 hold the litter in place. After the rope's end is made fast Nos. 2 and 4 make their way to the deck below. At the proper time Nos. 1 and 3 slide the litter over the coaming, allowing the foot to drop slowly until it can be reached by Nos. 2 and 4. After Nos. 2 and 4 have taken hold of the foot of the litter on their respective sides, Nos. 1 and 3 lift the head of the litter clear of the coaming by the attached rope and lower slowly, Nos. 2 and 4 steadying and keeping the litter in as nearly a horizontal position as possible, while easing it to the deck below. Either No. 2 or 4 unbends the rope's end while Nos. 1 and 3 make their way to the deck below. When all bearers are assembled they resume their positions at Carry Litter. Only such commands as are essential in accomplishing this movement need be given.

7-17. TO TRANSPORT LOADED NAVY LITTER FROM BELOW TO UPPER DECK WITH LADDER SHIPPED.—(a) The

head of the loaded Navy litter is placed on the highest step of the ladder that can be reached by Nos. 1 and 3 bearers, after which they release their holds and make their way to the deck above. Meanwhile, the litter is supported in this position by Nos. 2 and 4. After reaching the deck above, either No. 1 or 3 takes a rope's end down the ladder, attaches it to the center of the top rail at the head of the litter, and returns to the deck above. Then Nos. 1 and 3 pull on the rope attached to the litter while Nos. 2 and 4 gradually lower the foot until the entire length of the litter rests on the ladder. No. 2 then makes his way up to the deck above and assists in pulling the loaded litter up the ladder. No. 4 follows the litter and keeps the foot of it from bumping against the steps. When the head of the litter reaches the hatch coaming the litter is drawn over it by the three bearers on deck until the foot rests there; then No. 4 makes his way to the deck above and while Nos. 1 and 3 support the litter in this position, No. 2 unbends the rope's end. When all bearers are assembled they resume their positions at Carry Litter. Only such commands as are essential in accomplishing this movement need be given.

(b) With the ladder unshipped, a board (or boards) may be used in place of the ladder, and the same procedure followed.

7-18. TO TRANSPORT LOADED NAVY LITTER FROM ABOVE TO DECK BELOW WITH LADDER SHIPPED.—(a) The foot of the loaded litter is lowered to the coaming of the hatchway and Nos. 2 and 4 release their holds and assists in sliding the litter over the coaming until it rests on its middle. Then one of the free bearers, either No. 2 or 4, fastens the rope's end to the top rail, in the center, at the head of the litter, while Nos. 1 and 3 hold the litter in place. After the rope's end is made fast Nos. 2 and 4 make their way to the deck below. At the proper time Nos. 1 and 3 slide the litter over the coaming allowing the foot to drop slowly, and Nos. 2 and 4, who are stationed on the ladder below, assist in lowering the litter until it lies flat on the ladder, in which position it is slid to the deck below. The No. 1 bearer follows the litter down the ladder, easing it along by means of the attached rope, preventing the head of the litter from bumping the ladder steps. Nos. 2 and 4 grasp the foot of the litter on their respective sides and slightly raise it as it slides over the deck. No. 3 follows No. 1 down the ladder. When the litter rests its entire length on the deck, No. 3 unbends the rope's end and all bearers assume the position of Carry Litter. Only such commands as are essential in accomplishing this movement need be given.

(b) With the ladder unshipped, a board (or boards) may be used in place of the ladder, and the same procedure followed.

### *Three Bearers.*

While the loaded Navy litter may be handled by three bearers (fig. 67), four always should be used when possible. However, if only three bearers are available their duties are the same as those of Nos. 1, 2, and 3 with four bearers, No. 2 taking over the duties of the absent bearer, No. 4.

When three bearers are used, only such orders are given by the bearer in charge as are necessary to direct the movements.

### *Two Bearers.*

The loaded Navy litter can be carried for short distances by two bearers (fig. 68), one at each end. It can also be loaded by two men but the procedure is most unsatisfactory and is not recommended.

When only two bearers are used to handle the Navy litter they are not designated by number but the two men take over the duties of the four bearers. In this instance only such orders are given by the bearer in charge as are necessary to direct the movements.



*Positions of Bearers Reversed.*

Normally, a loaded litter is carried up a ladder, stairs, etc., head first. But when the patient has a



FIGURE 67.—Three bearers carrying loaded Navy litter.

fracture of a lower extremity, or if for any reason it be desired to carry the patient up a ladder feet first, or down head first, the movements of the bear-



FIGURE 68.—Two bearers carrying loaded Navy litter.

ers are reversed. In the former case Nos. 2 and 4 become the front bearers, in the latter Nos. 1 and 3.

### SECTION 3.—TRANSPORTATION WITHOUT LITTER

7-19. GENERAL.—Situations frequently arise where a patient must be transported without a litter or other equipment; he must be lifted and carried by hand, by one or more bearers. In selecting a manual method of transporting a patient two factors must be considered: (a) The nature of the disability and the care necessary to preclude complications likely to arise as a result of moving the patient; (b) The necessity of selecting for use the least awkward and tiring method of moving the patient, especially when any appreciable distance is involved.

Transporting a patient without a litter or other equipment may be accomplished by one or two bearers using the methods next described.

#### *One Bearer.*

7-20. SUPPORTING CARRY.—A single bearer may assist and support a slightly injured man in walking, which assistance is designated the "Supporting Carry." The procedure is as follows: (1) The bearer turns the patient on his face (fig. 69) and steps astride the patient's body, facing his head

(fig. 70); (2) The bearer places his hands under the patient's armpits and raises him to his knees (fig. 71); (3) The bearer clasps the patient around the waist and raises him to his feet (fig. 72); (4) The



FIGURE 69.—Supporting carry, first step.

bearer seizes the patient's left wrist with his left hand and draws the patient's left arm around the bearer's neck (fig. 73). The patient's body now rests against the right side of the bearer's body, the latter's

arm being placed around the patient's waist for support (fig. 74); (5) The patient then walks, assisted by the bearer.



FIGURE 70.—Supporting carry, second step.

7-21. IN ARMS CARRY.—This method may be used to carry an unconscious as well as a conscious patient. The procedure is as follows: (1) The patient is brought to an upright position by the first three

steps used in the Supporting Carry (see par. 7-20);  
(2) The bearer turns slightly toward his right (left),



FIGURE 71.—Supporting carry, third step.

brings his right arm upward to a supporting position about the patient's back, and passes his left (right)

arm under the patient's thigh (fig. 75); (3) The bearer lifts the patient into position, carrying him well up to lessen fatigue (fig. 76).



FIGURE 72.—Supporting carry, fourth step.



FIGURE 73.—Supporting carry, fifth step.





FIGURE 74.—Supporting carry.



FIGURE 75.—In arms carry, fourth step.



FIGURE 76.—In arms carry.



FIGURE 77.—Pickaback carry, fourth step.

**7-22. PICKABACK CARRY.**—This method is one of the easiest ways of transporting a patient by one bearer, but requires the cooperation of the patient. The procedure is as follows: (1) The patient is brought to an upright position by the first three steps used in the Supporting Carry (see par. 7-20); (2) The bearer maintains a pull on the patient's arm (fig. 77) and steps in front of the patient. Then, with his back to him, the bearer stoops and raises the patient upon his back (fig. 78). The patient having encircled the bearer's neck with his arms, the bearer grasps the patient's thighs (fig. 79); (3) The bearer resumes the upright position, at the same time lifting the patient, bringing him well up on his back. The patient continues to secure himself by grasping the bearer's neck (fig. 80).

**7-23. ACROSS BACK (FIREMAN'S) CARRY.**—This is the method of preference for transporting an unconscious patient by a single bearer. The procedure is as follows: (1) The patient is brought to an upright position by the first three steps used in the Supporting Carry (see par. 7-20); (2) The bearer passes around to face the patient's left, grasps the patient's right wrist with his left hand (fig. 81) and draws the arm over his head and down upon his left shoulder (fig. 82); (3) The bearer shifts himself in front of the patient, stoops and passes his right arm be-

tween the patient's legs (fig. 83) and then draws the patient over his right shoulder and rises (fig. 84);



FIGURE 78.—Pickaback carry, fifth step.

(4) The bearer passes the patient's right wrist to his own right hand, reaches backward with his left

hand and, grasping the patient's left wrist, draws the patient's left arm forward and around his body (fig. 85).



FIGURE 79.—Pickaback carry, sixth step.



FIGURE 80.—Pickaback carry.





FIGURE 81.—Across-back carry, fourth step.



FIGURE 82.—Across-back carry, fifth step.



FIGURE 83.—Across-back carry, sixth step.



FIGURE 84.—Across-back carry, seventh step.



FIGURE 85.—Across-back carry.

7-24. TIED-HANDS CRAWL OR CARRY.—(a) This method of transporting a patient by a single bearer should be used when enemy observation and resultant fire render other methods impracticable and when it appears prudent for the bearer to stay out of sight or as close to the ground as possible. The procedure is as follows: (1) The bearer lays the patient on his back; (2) The bearer places himself on his back by the patient's left side; (3) The bearer grasps the patient's right arm above the elbow from its under side with his right hand; (4) The bearer grasps the same arm (right) below the elbow, from the topside, with his left hand (fig. 86); (5) The bearer then, keeping the right side of his body slightly upon the patient's body and entwining his legs around the patient's legs, rolls over to the left onto his stomach, pulling the man with him (the patient is now lying face down on the bearer's back with his left arm free (fig. 87) and his right arm over the bearer's right shoulder; (6) The bearer, after assuming this creeping or crawling position, draws the patient's left arm under his left armpit and secures both wrists of the patient together with any available material (cloth, bandage, neckerchief, handkerchief, etc.); (7) The bearer may then crawl with the patient in this position (fig. 88), or, when necessary, rise erect and climb ladders or, if it is

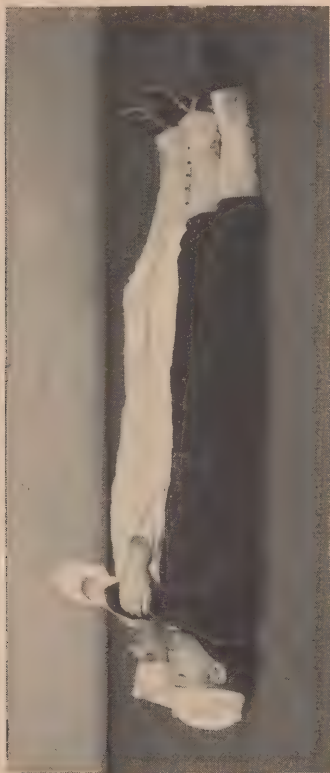


FIGURE 86.—Tied-hands crawl or carry, first step.

desired to carry him pick-a-back. reach behind and support his legs.

(b) The method just described may be varied by the bearer first tying the patient's wrists together and then lying down on top of him, inserting his head and right (or left) shoulder through the loop formed by the patient's tied wrists, and then turning



FIGURE 87.—Tied-hands crawl or carry, second step.

so that the patient is in the position described in the preceding paragraph.

(c) Should the patient's right arm be injured, the bearer places himself on his back by the patient's right side and grasps the patient's left arm instead of the right, substituting his right arm or hand where the left is indicated in the text, and vice versa.



*Two Bearers.*

7-25. THE RIFLE-OVERCOAT CARRY.—A patient may be transported by utilizing two rifles and an overcoat (see par. 6-4 (b) (1)). The procedure is as follows: (1) Turn the overcoat inside out and button it, keeping the sleeves inside; (2) With the buttons



FIGURE 88.—Tied-hands crawl or carry completed.

down and beginning at the collar end, insert the barrel of a rifle through each sleeve; (3) The front bearer rolls the tails of the coat tightly around the barrels of the rifles and takes his grasp over them; the rear bearer holds by the butts of the rifles, trigger guards up.

A blouse or a jumper may be utilized in the same manner as, and in lieu of, an overcoat.

7-26. THE RIFLE-BLANKET CARRY.—Two rifles and a blanket may be utilized by two bearers to carry a patient (*see par. 6-4 (b) (2)*). The procedure is as follows: (1) Fold a blanket once from side to side and lay a rifle transversely upon it across the center so that the butt and muzzle project beyond the edges; (2) Next fold one end of the blanket upon the other, lay a second rifle upon the new center, and fold the free ends of the blanket upon the end containing the first rifle so as to project a couple of inches beyond that edge; (3) The front bearer grasps the barrels of the rifles and the rear bearer holds by the butts, trigger guards up.

7-27. ARMS AND LEGS CARRY.—This method, employed by two bearers, may be used to transport the unconscious as well as the conscious patient. The procedure is as follows: (1) With the patient on his back, the front bearer spreads the patient's lower extremities, steps between them facing the patient's feet, kneels, and grasps the patient's thighs with his arms (*fig. 89*); (2) At the same time the rear bearer kneels at the patient's head facing the patient, thrusts his arms beneath the patient's shoulders, and brings his forearms inside the patient's arms, upward and across the patient's chest, interlocking his

hands (fig. 90); (3) Bearers rise simultaneously, lifting the patient into a semirecumbent position (fig. 91).

7-28. FOUR-HAND GRASP CARRY.—This method may



FIGURE 89.—Arms and legs carry, first step.

be used by two bearers to transport a conscious patient. The procedure is as follows: (1) The bearers

face each other, each grasping his left wrist with his own right hand (fig. 92); (2) A seat is then made of the four hands by each bearer grasping the other's right wrist with his own free left hand (fig. 93); (3)



FIGURE 90.—Arms and legs carry, action of rear bearer.

On this improvised seat the patient sits, supporting himself by placing an arm around the neck of each bearer (figs. 94 and 95).

7-29. IN ARMS CARRY.—This method may be used by two bearers to transport a conscious or uncon-



FIGURE 91.—Arms and legs carry completed.

scious patient for a limited distance, or when loading on some mechanical carrier. The procedure is as



FIGURE 92.—Four-hand grasp carry, first step.

follows: (1) With the patient lying on his back, the bearers kneel on one knee on the same side of the patient; one bearer then places one arm beneath the patient's shoulders (the partially bent elbow sup-



FIGURE 93.—Four-hand grasp carry, second step.

porting the head and neck) and the other arm beneath the patient's back at about the lower rib margins, while the other bearer places his arms be-



FIGURE 94.—Four-hand grasp carry, placing patient in position.





FIGURE 95.—Four-hand grasp carry, patient being carried.

neath the patient's hips and knees, respectively (fig. 96); (2) Bearers lift patient to their knees (fig. 97); (3) The bearers rise simultaneously, lifting the patient in a horizontal position, his weight being carried well up (fig. 98).



FIGURE 96.—In arms carry, beginning (2 bearers).

7-30. SUPPORTING CARRY.—This method may be used by two bearers, one on each side, to assist a slightly injured patient in walking. The procedure is similar to that described for one bearer in paragraph 7-20.

*On Horseback.*

7-31. A patient who is able to help himself to some extent may be transported by horseback. The procedure is as follows: (1) The horse, blindfolded if

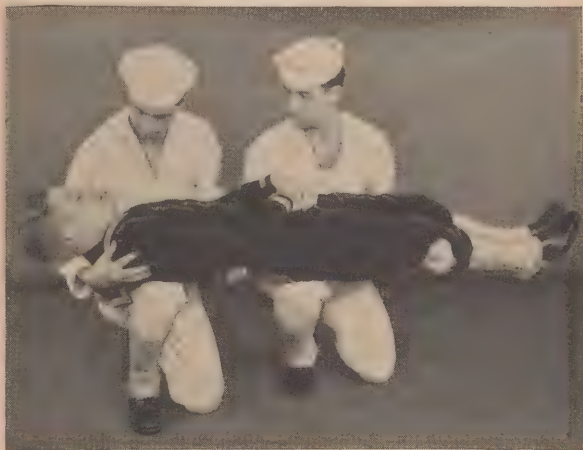


FIGURE 97.—In arms carry, second step.

necessary, is held by an attendant. (2) Sufficient help, depending upon the location and nature of the injury, is rendered to mount the patient. (3) Once mounted, the patient is made as comfortable as pos-

sible. A comrade may be mounted behind the patient to assist him and to guide the horse; otherwise,



FIGURE 98.—In arms carry, completed.

a lean-back may be provided, made of a blanket roll, a pillow, or a bag filled with leaves or grass. If the

patient is very weak, the lean-back may be made of a sapling bent into an arch over the cantle of the saddle, its ends securely fastened.

*Drill.*

7-32. **GENERAL.**—(a) Drill in the transportation of patients without litters is only for the purpose of providing the instruction and exercise necessary to develop uniformity in applying the proper methods and procedures concerned therewith. To facilitate this instruction and exercise certain commands should be used but their use in actual operations is not contemplated. The preparatory commands appear in the text in small capital letters and the commands of execution in large capital letters.

(b) **FORMATION.**—1. For instruction in handling the patient by one bearer the unit (squad, platoon, or company) should be formed in two ranks, facing each other. After each rank has counted off, men with the same number form teams, the two ranks alternating as bearer and patient as directed by the instructor.

2. For instruction in handling the patient by two bearers the units should be formed in single rank and then divided into groups of threes. The individual members of each group alternate as No. 1

bearer, No. 2 bearer, and patient, as directed by the instructor, the No. 1 bearer being in charge of the group.

7-33. TO CARRY PATIENT BY ONE BEARER (*see pars. 7-20, 7-21, 7-22, 7-23, 7-24, and 7-25*).—Only one set of commands, varied to meet the requirements of the method used, is necessary for this instruction.

(a) *To place bearer in position.*—The patient being prone, to place the bearer in position, the commands are: 1. RIGHT (LEFT) SIDE, 2. POST. The preparatory command will vary with the patient's disability. If there be no choice, the command will be left side, thus enabling the bearer to work from his right. At the command POST, the bearer moves by the nearest route and takes an erect position by the patient's right (left) hip, facing the patient.

(b) *To lift patient.*—The bearer being in position, to lift the patient to the carry, the commands are: 1. BY SUPPORTING CARRY (or other type carry desired), 2. LIFT, 3. PATIENT. At the first command, the bearer stands fast. A short pause after this command enables the bearer to mentally review the actions he will take. At the second command, the bearer proceeds to bring the patient to an erect position. (*see par. 7-20*). At the command PATIENT, the bearer lifts the patient to the position indicated by the first command.

7-34. TO CARRY PATIENT BY TWO BEARERS (*see* pars. 7-26, 7-27, 7-28, 7-29, and 7-30).—(a) *To place bearers in position.*—As in the case of the one-bearer carries, to place bearers in position, the same commands, varied to meet the desired method of carry, are prescribed. These commands are as follows: 1. *Arms and legs carry.*—To place bearers in position for the Arms and Legs Carry, the commands are: 1. HEAD AND FEET, 2. POSTS. At the command POSTS, bearers take position as follows: No. 1 between the patient's legs, No. 2 at the patient's head, both facing the patient's feet.

2. *In arms carry.*—To place bearers in position for the In Arms Carry, the commands are: 1. RIGHT (LEFT) SIDE, 2. POSTS. At the command POSTS, bearers take position on the right (left) side of the patient, No. 1 opposite and facing the patient's hip, No. 2, the patient's shoulder.

3. *Supporting carry.*—To place bearers in position for the Supporting Carry, the commands are: 1. BOTH SIDES, 2. POSTS. At the command POSTS, bearers proceed by the most direct route to the patient and take erect positions facing the patient, No. 1 opposite the patient's right hip, and No. 2 opposite the patient's left hip.

(b) *To lift patient.*—The bearers being in position to lift patient, the commands are: 1. BY ARMS

AND LEGS CARRY (or other type carry desired), 2. LIFT, 3. PATIENT. At the second command, bearers place themselves and the patient in the necessary position for lifting. At the command PATIENT, bearers lift patient to the position designated in the first command.

7-35. TO LOWER PATIENT.—Whether one or two bearers are being utilized, to lower patient, the commands are: 1. LOWER, 2. PATIENT. At the command PATIENT, the patient is carefully lowered to a prone position by a reversal of the steps by which he was originally lifted, when the bearer or bearers resume posts assumed prior to lifting the patient.



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## CHAPTER VIII

### LANDING FORCES AND SHIP BATTLE DRILL

#### SECTION 1.—THE LANDING FORCE

8-1. GENERAL.—(a) The term LANDING FORCE is used when the force to be landed is composed of officers, men, and equipment drawn from the crews and material of naval vessels. Such a force may be landed for drill, ceremonies, parades, civilian disaster relief, or to guard embassies or United States citizens in foreign ports. In time of war it may be landed to seize, occupy, and defend military objectives.

(b) A permanently organized landing force comprised of rifle, machine gun, 37-mm. gun, 81-mm. mortar, artillery, and other units as prescribed by the force or fleet commander, is maintained by each ship that has landing-force equipment, each division, each force, and each fleet. The organization of the landing force, whether ship, division, force, or fleet, is flexible so that all or any part of the landing force may be landed as required by the nature of the task to be performed.

(c) The ship's landing force varies in size and composition according to the type of ship, that for

a ship of the first rate normally consisting of a battalion, or infantry battalion as it is commonly called. Except under extraordinary circumstances and when specifically directed by the senior officer present, not more than one-half of the combatant complement of a ship is landed at any one time. Enough men are always left on board to care for the ship, to use the battery, and to move the engines as may be required by the existing conditions of weather or service. A small ship which cannot furnish a battalion organizes its landing force so that a battalion can be formed by combining its forces with those of adjacent ships.

(d) A landing-force battalion is so organized as to include all command, administrative, and supply functions required for its employment as a combat unit. At normal strength an infantry battalion comprises three rifle companies, one machine-gun and special weapons company, and one headquarters company.

(e) The headquarters company of a battalion furnishes the personnel and equipment necessary to the battalion commander for the execution of his command and administrative functions and such other personnel as will enable the battalion to be self-contained. One of the subdivisions of the battalion headquarters company is the medical section.

(f) The *medical section* of a landing-force battalion is commanded by the battalion surgeon who is a member of the battalion staff. The battalion medical section consists of 8 hospital corpsmen, 1 for each company (known as company-aid men), and 4 at the battalion dressing station or small hospital, and litter bearers who are assigned from the various companies as required, usually 2 for each 100 combatants. The band section, comprised of 20 enlisted men, is available for service as litter bearers with the medical section.

(g) If considered necessary for the contemplated operations, a company organized for independent missions, or a ship's landing force of the size of a company, may have included in its administration and supply group a medical section consisting of one medical officer, one hospital corpsman, and litter bearers assigned from company personnel as required. Platoons organized for independent missions, or a ship's landing force of the size of a platoon may have included in the organization a medical group consisting of a medical officer or hospital corpsman and litter bearers from platoon personnel as required. In the event a ship's landing force of the size of a platoon is combined with the landing-force detachments from other ships to form a company,

the medical groups may be assigned to the company headquarters.

(h) Landing-force battalions from several ships may be combined to form an infantry regiment which, at normal strength, is comprised of a headquarters company, a service company, and two or more battalions, usually three.

(i) The organization, formation, functions, etc., of the regimental headquarters company are, in general, similar to those of the battalion headquarters company and one of its subdivisions is the medical platoon.

(j) The *medical platoon*, as the medical section of an infantry regiment is designated, consists of 2 medical officers, 20 hospital corpsmen, and the necessary litter bearers, and establishes a regimental medical headquarters and a small hospital. The regimental surgeon, a member of the regimental staff, is in command of the medical platoon.

(k) A landing-force brigade normally comprises a brigade headquarters, special troops, two infantry regiments, an engineer battalion, and a medical battalion. When artillery and aviation are added, the organization is termed a reinforced brigade.

(l) A *medical battalion* is composed of a headquarters company, a service company, a collecting company, an ambulance company, and two hospital

companies. The brigade surgeon, a member of the brigade staff, is in command of the medical battalion.

*Organization.*

8-2. GENERAL.—(a) Whatever the plan or organization adopted for the various landing forces, it is important that it be made as nearly permanent as possible, complete in all its details, and that units be definitely assigned, in order that all concerned may become familiar with their duties before the time when the landing force may be required. This is especially true of the detail of the commanders and of staff officers for all organizations. Systematic instruction and drill therefore must be given the different units comprising the force and as the opportunities for drill and exercise on shore are necessarily limited much of such training must be done on board ship. It usually consists of lectures, practical demonstrations, and such exercises as the available space on board ship will permit.

(b) A military organization consists of a command element, combat elements, and service elements. The command element consists of a single head or commander, together with such assistants or staff officers as are necessary to relieve him of the burden of details and enable him to exercise adequate control over his command.

The commander of any unit is alone responsible to his superior for all the unit does or fails to do. All policies, basic decisions, and plans must be authorized by the commander before they are put into effect. All orders from a higher unit to a subordinate unit are given to the commander thereof, and each individual is accustomed to look to his immediate superior for orders and instructions. By this means alone, authority and responsibility are definitely fixed and the channels of command definitely established.

(c) The **STAFF** is an aid to command. It is provided to relieve the commander of details by: (1) Providing basic information and technical advice by which he may arrive at decisions; (2) Developing the basic decision into adequate plans, translating plans into orders, and transmitting them to subordinate leaders; (3) Insuring compliance of these orders by constructive inspection and observation for the commander; (4) Keeping the commander informed of everything he ought to know; (5) Anticipating future needs and drafting tentative plans to meet them; and (6) Supplementing the commander's efforts to secure unity of action throughout the command.

(d) The sole purpose of the staff is to assist the commander to accomplish his mission, and the acme

of staff service is reached when, under the direction of the commander, and with the minimum of friction, discomfort, misunderstandings, and loss for the units of the command, that mission is achieved. Teamwork is essential to efficient staff functioning, and cooperation not only works downward but upward and laterally as well.

(e) All military units larger than a company have headquarters and staffs whose duties are both tactical and administrative. The battalion is the smallest unit which has a staff, although even in the company there are officers and petty officers who have duties that parallel those of the staff officers.

(f) Brigade and regimental commanders are designated by the fleet or force or division commanders, and staff officers are similarly designated usually, as far as practicable, on the recommendation of their respective chiefs. The senior medical officers in a landing force are known as brigade, regimental, and battalion surgeons. They are members of the staffs of the units to which they are attached, and they serve as their titles indicate. Responsibility for the medical service of a landing force is vested in the senior medical officer attached to the largest tactical unit of the force and the normal chain of medical responsibility is, in descending order: Brigade surgeon, regimental surgeon, and battalion surgeon.

8-3. **STAFF SURGEONS.**—(a) In general, a medical officer serving on the staff of any landing-force unit:

- (1) Exercises supervision over all medical-department activities of the unit, including instruction of medical-department personnel;
- (2) Is charged, under the direction of the commander of the unit, with the command of such personnel as are attached to or serving with the medical department of the unit;
- (3) Furnishes the commander of the unit with information and advice on all questions affecting the medical department;
- (4) Submits to the commander of the unit such recommendations and requests as he may deem advisable as to training, instruction, and utilization of personnel other than medical department to promote the medical welfare of the unit;
- (5) Initiates and supervises measures for the care, treatment, and evacuation of the sick and wounded of the unit;
- (6) Institutes measures to insure the keeping of the required records and the making of the required reports by the medical-department personnel of the unit;
- (7) Supervises the dental services for the unit;
- (8) Recommends to the unit commander measures for the prevention and control of disease in the unit;
- (9) Recommends to the unit commander visits of inspection by himself or his assistants to such places, within the territorial limits of the command, as may be necessary for the purpose



of inspecting medical-department personnel, equipment, and administration, and of investigating conditions affecting the health of military personnel; and (10) Performs such other duties as may be properly prescribed by superior authority.

(b) The REGIMENTAL SURGEON, when not specifically designated as such, is the senior of the medical officers present with the battalions forming the regiment. He serves in both an advisory and administrative capacity.

As a member of the staff of the regimental commander he advises that officer on medical and sanitary matters, all advice given or recommendations made to be in accord with the policies of higher medical authority.

He supervises all training of the detachment and instructs the entire personnel of the regiment in personal hygiene, field sanitation, and first aid.

He provides for the care and treatment of the sick and wounded.

He establishes and commands a regimental-aid station if indicated.

He makes the sanitary inspections, supervising the methods of purification of the water supply, the sanitation of kitchens, the methods of disposal of garbage and waste water, the sanitation of latrines and urinals and the filling in and marking of the same

when discontinued, the sanitation of bathing places and picket lines, measures taken for the destruction of flies and mosquitoes, and other sanitary procedures and precautions necessary to preserve the health of the command.

He makes timely requisitions for all necessary medical and dental supplies and equipment.

He organizes the medical detachment and plans its work so as to insure the accomplishment of its mission with the least possible disturbance to the arm of service which it serves. Such organization of the attached medical troops and such plans as he may make for their tactical employment are as simple as is consistent with the accomplishment of their mission.

He keeps such records and renders such reports and returns as may be required.

The ASSISTANT REGIMENTAL SURGEON is an officer of the Medical Corps, usually of the rank of lieutenant or lieutenant, junior grade. In general, his duties are such as may be assigned to him from time to time by the regimental surgeon. He acts for and in the name of the regimental surgeon during that officer's absence from the command. He may be detailed to supervise the preparation of reports and returns, the preparation of requisitions for supplies, and the issue of such supplies to sections of the

medical detachment. He may also be placed in charge of the regimental dispensary and of the regimental aid station when one is established. Under the supervision of the surgeon, he may be detailed to hold sick call and conduct the training of the personnel of the headquarters regimental medical detachment.

(c) The **BATTALION SURGEON** is the senior medical officer assigned to duty with a battalion and usually is of the rank of lieutenant. In general, his duties within the battalion are analogous to the duties of the regimental surgeon within the regiment.

The **ASSISTANT BATTALION SURGEON** is a commissioned officer of the Medical Corps assigned to duty with the battalion. In general, the assistant battalion surgeon's duties in the battalion are analogous to the duties of the assistant regimental surgeon in the regiment. During combat he treats or supervises the treatment of casualties within the battalion aid station.

(d) When **DENTAL OFFICERS** are assigned to the medical detachment they are subordinate to the senior medical officer of the detachment to which they are attached and are under his immediate command. Dental officers are usually included in the regimental medical headquarters and assigned to duty with separate battalions of the regiment by

the regimental surgeon whenever he considers such assignment necessary. Under the direction and supervision of the regimental surgeon, they are responsible for the dental care of the command. This includes the instruction of the entire personnel of the regiment in oral hygiene, the making of oral inspections to determine whether or not the command is practicing oral hygiene, the making of dental surveys to determine the amount and character of dental work to be done, and the accomplishment of this work in order of importance to the command and to the individual. They establish and operate the dental service of dispensaries and during combat assist the regimental or battalion surgeons, as the situation requires. They are responsible for the diagnosis, care, and treatment of dental injuries received in combat. They keep dental records and render dental reports and returns as required.

*The medical detachment.*

8-4. GENERAL.—(a) Whenever the medical detachment is acting as a unit of the size of a company or larger it carries the white flag bearing a red cross commonly known as the red-cross or Geneva-Cross flag, and when acting independently it also carries the national flag. Ordinarily all medical officers, hospital corpsmen, litter bearers, and others

serving with the medical detachment wear a red-cross brassard (an arm badge of white bearing a red cross) on the left arm and carry no arms. Against a savage or uncivilized enemy or one which does not comply with the "Rules of Land Warfare," however, it may be necessary to arm them, in which case they carry a pistol and omit the brassard.

(b) In an actual engagement hospital corpsmen will be so busily engaged in the dressing of wounds and in other work pertaining to their rating that it not only will be impracticable but disastrous to attempt to employ them in any other capacity. To assign hospital corsmen as litter bearers tends to weaken the entire medical organization, destroy its morale, and ruin its efficiency. Litter bearers therefore should invariably be furnished from the various companies and should be men who have had special instruction in first-aid procedures and transportation of the wounded. During an engagement, in order to reduce the number of ineffectives in the landing force to a minimum, messmen, orderlies, and others not actually engaged in their regular duties should, when practicable, be employed to augment and reinforce the regular litter bearers. This additional personnel should assist in the transportation of the wounded and perform such other duties as

may be directed by the battalion or other surgeon, and when so serving should lay aside its arms and wear red-cross brassards.

8-5. CLOTHING AND INDIVIDUAL EQUIPMENT.—(a) The UNIFORMS, CLOTHING, AND INDIVIDUAL EQUIPMENT to be worn or carried by the personnel of a landing force will depend upon the nature of the task of the landing force, the climatic conditions to be expected, and the baggage space available, the requirements ordinarily being promulgated by the organization commander prior to departure. Normally the medical-detachment personnel carries the same articles, except arms, as prescribed for line personnel and, under certain conditions previously mentioned, may be armed.

(b) The EQUIPMENT FOR OFFICERS includes such of the following articles as are required: (1) Automatic pistol, .45 caliber with 3 magazines, holster, lanyard, and 21 rounds of ammunition; (2) Pistol belt, with suspenders and magazine carrier; (3) First-aid package, with pouch; (4) Canteen with cover and cap; (5) Haversack, with mess gear (knife, fork, spoon, meat can, meat-can cover); (6) Field glasses; (7) Whistle; (8) Poncho; (9) Flashlight, electric; (10) Wrist watch, with luminous dial; (11) Compass, with luminous dial; (12) Despatch case, message book, note book, black, blue, green, and red pencils; (13)

Clothing roll; (14) Bedding roll; (15) Trunk, locker (two for lieutenant commanders and above); (16) Identification tags, when prescribed; (17) Gas mask, when prescribed; and (18) Steel helmet, when prescribed.

When extended operations are contemplated ashore where it is impracticable to carry officers' bedding and clothing rolls, a blanket roll may be made by rolling the blanket (or blanket and poncho) lengthwise, with extra clothing and toilet articles inside, securing it with tie-ties. The roll is placed over the right shoulder, with both ends of the roll secured together under the left arm.

Only such clothing as is absolutely necessary should be carried, but a change of underclothing, two pairs of socks, one towel, a blanket, and an extra pair of shoes should be included.

(c) The EQUIPMENT AND CLOTHING FOR MEN in light marching order normally includes one of each of the following articles: Belt, pistol, web (without magazine carrier); can, meat; canteen, cover and cup; cap, white, watch (sailor's), or garrison (marine's); carrier, pack, haversack; fork, haversack (carried in meat can pouch); haversack; helmet, steel (when issued); kit, toilet (with tooth brush, razor, comb, dentifrice, shaving cream, mirror, soap, soap box, towel, sewing kit, extra pair of leggings and shoe

laces, and, if used, shaving brush, hair brush, matches and tobacco); knife, haversack (carried in meat can pouch); mask, gas (when issued); overcoat (when prescribed by commanding officer); package, first aid, with pouch; poncho, rubber; pouch, meat can, haversack; ration, cooked (when prescribed by commanding officer; carried in haversack); ration, reserve (when issued; carried in haversack); socks, pair, carried in haversack); spoon, haversack (carried in meat can pouch); and tag, identification, with tape. In heavy marching order one each of the following articles, unless otherwise noted, is carried in the roll in addition to those in the preceding list: Blanket; drawers; jumper (sailor's); 5 pins, tent, shelter, round; pole, tent, shelter; shoes, pair; shirt, cotton or flannel (marine's); socks, pairs (total, 2 pairs); tent, shelter, half; trousers; and undershirt. Clothing and equipment are carried in the infantry pack, being assembled as prescribed in the paragraphs next following with the exception that hospital corpsmen use the web pistol belt instead of the web cartridge belt and references to the cartridge belt should, therefore, be considered as applying to the pistol belt.

(d) TO ASSEMBLE THE HEAVY MARCHING ORDER PACK.—

1. *To assemble the pack carrier to the haversack.*—



a. Spread the haversack on the ground, inside down, suspender side up, outer flap to the front.

b. Place the buttonholed edge of the pack carrier under the buttonholed edge of the haversack, binding straps of the carrier up, center row of buttonholes of the carrier resting under the corresponding buttonholes of the haversack. The center row of the buttonholes of the pack carrier is suited to a roll of the over-all length of the bayonet; for a longer roll, or when a large package of reserve rations is carried, use the upper row of buttonholes; for a shorter roll, use the lower row of buttonholes.

c. Lace the carrier to the haversack by passing the ends of the coupling strap down through the corresponding buttonholes of the haversack and carrier nearest the center, passing the ends up through the next buttonholes and continuing to the right and left, to the sides, until they are linked together.

2. *To attach the cartridge belt to the assembled pack carrier and haversack.*—a. Spread the pack carrier and haversack on the ground, inside down, suspender side of the haversack up, and place the cartridge belt, adjusted to the man, pockets down, tops to the front, along the junction of the haversack and carrier.

b. Insert the end hook of rear belt suspender in the eyelet in the top center of the adjusting strap of

the cartridge belt, the end of the hook outside of the belt.

c. Insert hooks of front belt suspender in the top eyelets between the first and second or second and third pockets (depending on size of man) from the male and female fasteners.

3. *To assemble heavy marching order equipment with toilet articles, poncho, and reserve rations.—*

a. Place the assembled pack carrier, haversack, and cartridge belt on the ground, suspender side of the haversack down, pockets of cartridge belt up, haversack spread out, outer flap extended to the front, pack carrier and inner flap extended to their full length to the rear.

b. The poncho is folded to the width and length of the inner flap and laid on the haversack extending from the top edge of the inner flap to within about one inch of the outer edge of the outer flap.

c. Toilet articles, one pair of shoe laces, one pair of legging laces, and sewing kit are rolled, towel on the outside, into a neat roll the width of the outer flap and are placed on the poncho at the outer end of the haversack, its forward edge even with the rear end of the outer flap. A pair of socks is placed next to the towel roll so they will be easily accessible on the march. A reserve ration, if issued, will be

placed on the poncho and haversack in rear of or under the rolled towel depending on its size.

d. The inner flap is folded over and forward of the articles named in preceding paragraph and then back under them.

e. The sides of the haversack are folded over the sides of the assembled towel, reserve ration, and rear end of the poncho; the upper binding strap (or the two upper binding straps if the reserve ration as carried extends below the middle strap) is passed through the loop on the inner flap opposite its point of attachment to the haversack body and is fastened to the tongueless bar buckle on the opposite side in such manner that the free end tucks inside the haversack, the strap having been first pulled tight to make the fastening secure.

4. *To assemble the heavy marching order roll.*—

a. Spread the shelter half with guy rope attached on the ground with tie-ties up, triangular end away from the man. Lay tie-ties and guy rope across shelter half and fold triangular end over toward the man, making it a rectangle.

b. Spread blanket on sheiter half, stripes parallel to ridge, with name down and end bearing name on side of ridge. Fold ends of blanket over so they meet in center. This will make a long roll. For a

short roll, the blanket ends should overlap, the extreme overlap being 8 inches. Move blanket so that edge rests on ridge, which leaves from 18 to 26 inches of tent exposed at bottom of tent, front edge of blanket as displayed coinciding with rear edge of shelter half.

c. Standing at the front end of the tent, ridge on the right, place the clothing in the following order on the left half of the blanket and about one foot from the front edge of the tent. One pair of trousers and one jumper (shirt) side by side, jumper (shirt) on the right; on top of the trousers place one pair of drawers; on the top of the shirt place one undershirt; across the clothing place one pair of socks. For the Navy a white cap and watch cap are added and form the outer layer.

d. The width of the clothing will be the width of the fold of the blanket. Between the clothing and front edge of tent and close to clothing, place one pair of shoes, sole of left shoe down, sole of right shoe up, toes overlapping, tops of shoes turned back. Shelter-tent pole is placed on blanket at other end of and close to clothing. Shelter-tent pins are placed inside shoes, three in the right shoe and two in the left.

e. Fold end of blanket at front of tent over shoes. Then fold right half of blanket over left half, cover-

ing clothing. Then take end of blanket farthest from clothing and fold it over to the shelter-tent pole. Fold bottom edge of tent over blanket, then fold ridge over this. Fold over about 1 foot of end of tent farthest from clothing to form a pocket. Beginning at front edge roll compactly into this pocket.

5. *To assemble the roll to the pack carrier.*—*a.* Lay the lower haversack binding strap forward on the haversack, place the roll in the pack carrier, and grasp the lower suspension rings at the base of the pack carrier, one in each hand; place one knee against the bottom of the roll; pull the carrier down and force the roll up close against the bottom of the packed haversack; without removing the knee pass the lower pack carrier binding strap over the roll and up through the nearer aperture of the tongueless bar buckle and down through the farther aperture, pull tight and tuck away the free end; pass and secure in similar manner the upper pack carrier binding strap, and then the remaining binding straps.

*b.* Engage the snap hooks on the pack suspenders in the lower suspension rings; fold down outer flap (and end of poncho); pass the lower haversack binding strap under the bottom or middle one of the three haversack binding straps, then up through the tongueless bar buckle on the inner side of the outer flap.

c. The equipment is now assembled and packed, ready to be adjusted to the man.

6. *To discard the roll without removing the equipment from the body.*—Men work in pairs, assisting each other. Pull the lower end of the roll away from the man. Grasp the coupling strap at its middle and withdraw first one side and then the other. Loosen those haversack binding straps which are around the roll, pull the roll down and remove it. Unsnap the pack suspenders from the lower suspension rings and snap them into the upper suspension rings on the inner flap. Tighten haversack binding straps, if loose. When the roll has been removed secure the coupling strap by lacing it through the buttonholes along the upper edge of the carrier.

7. *To assemble the heavy marching order roll without the shelter half.*—The roll is assembled in a manner similar to that prescribed in par. 8-5 (d) 4, with the following modifications:

a. Spread blanket on the ground, name down, and end bearing name on the right. Fold top and bottom of the blanket toward each other until they meet in the center, or overlap (if short roll is desired.)

b. Place clothing as described for heavy marching order roll (see par. 8-5 (d) 4), on the near side of the left flap of the blanket, and about 1 foot from its rear edge. Place the shoes as described for heavy

marching order roll next to the clothing and on the near side of the left flap. Fold near side of the blanket over the shoes. Fold right half of the blanket over the left half. Fold far side of the blanket over about 1 foot to form a pocket. Beginning at the clothing end of the roll (near side), roll compactly into the pocket.

c. If it is desired to show name of man on outside of blanket roll as a means of identification of the roll, spread blanket on the ground, name down and end bearing name to the front. Lay clothing as described for heavy marching order, except that center line of clothing is on center line of blanket. Place shoes in rear of clothing. Fold near end of blanket over shoes. Fold right side of blanket over clothing. Fold left side of blanket on top of right side. Fold far end of blanket over about 1 foot to form a pocket. Beginning at the clothing end of the roll (near end) roll compactly into the pocket. Place roll in pack so the name will be exposed and with top of letters to right.

8. *To assemble the light marching order pack.*—

a. Attach the cartridge belt to the haversack and pack carrier as prescribed in paragraph 8-5 (d) 2.

b. Roll the pack carrier, with binding straps inside, up over lower edge of haversack. Place and secure in the haversack: The towel, rolled with one

pair of socks and toilet articles; the poncho and reserve ration, when issued, as prescribed in par. 8-5 (d) 3, and secure, in addition, the bottom haversack binding strap. Fold the outer flap over and secure it by means of the lower haversack binding strap and the buckle on its under side. Engage the snap hooks on the ends of the pack suspenders with the upper suspension rings on inner flap.

9. *Equipment and special equipment* will be worn or carried as prescribed in the following paragraphs:

a. Canteen cover.—On left hip, attached to pistol belt.

b. Case, despatch.—Suspended on the right side by a strap passed over the left shoulder.

c. Compass.—Carried in breast pocket.

d. *First-aid pouch*.—Near left hip, attached to pistol belt.

e. Helmet.—Attached to the haversack by placing the strap over the meat-can pouch and then secure it by tying it on with a cord (shoe or legging lace). When worn, the strap on the helmet is worn around the back of the neck.

f. Brassards.—Worn on left arm.

g. *Gas mask*.—Worn under the left arm and over all other equipment, suspended by a strap passed over the right shoulder.



*h.* Glasses, field.—On the left side, suspended from the belt or by a strap passed over the right shoulder.

*i.* Haversack, officers' type, with strap.—Worn by officers, suspended on the left side by a strap over the right shoulder.

*j.* Haversack, officers' type.—Worn by chief petty officers and petty officers suspended from pistol belt in front of canteen.

*k.* Pistol and holster.—On the right hip when prescribed.

*l.* Whistle.—Carried in left breast pocket. Appropriate adjustments in placing or wearing of equipment on belt will be made to suit the measure of waist or conformation of the individual.

(e) INSPECTION OF PERSONAL FIELD EQUIPMENT WHILE IN RANKS.—When equipment is to be inspected in ranks the commander causes his unit to prepare for inspection as prescribed in paragraph 5-44 and the inspection is conducted as described in the paragraphs next following.

1. The company forms in column of platoons (with each platoon in line) by forming extended mass formation to the right at 24 paces (par. 5-41) and then executing left face. The company commander directs the platoon leader to prepare for inspection of equipment. If litters are being carried the command 1. LOWER, 2. LITTERS is given. The platoon

leader provides the additional distance necessary for the display of equipment between the opened ranks by the commands: 1. FRONT RANK, THREE PACES FORWARD, 2. MARCH; 1. SECOND RANK, TWO PACES FORWARD, 2. MARCH; 1. THIRD RANK, ONE PACE FORWARD, 2. MARCH. He then causes the platoon to take interval. Intervals having been taken, the platoon leader commands: 1. UNSLING EQUIPMENT, 2. DISPLAY EQUIPMENT.

2. At the command UNSLING EQUIPMENT, each man unslings his equipment and places it on the ground at his feet, haversack up and to the front, end of the pack in front of and touching his toes.

3. At the command DISPLAY EQUIPMENT, pack carriers are unstrapped, rolls removed and unrolled, the longer edge of the rolls along the lower edge of the pack carriers.

4. Each man then detaches the pack suspenders from lower suspension rings and rolls up pack carrier until coupling strap is exposed and on line with upper edge of belt.

5. Each man unfolds his shelter half and blanket so as to expose the contents of roll.

6. He then places rear end (actual) of shelter half with blanket on top and at right, to meet lower edge of belt, center line of belt corresponding with center line of blanket, carriers which are suspended

from belt showing on top of blanket. Guy rope, attached to shelter half, exposed at left front corner of shelter half.

7. He then removes: Meat can and cover; knife, fork, and spoon from meat can pouch, and lays outer flap over to front; canteen and canteen cup from the canteen cover; first-aid package from first-aid pouch; and other special equipment from carriers, pouches, carriers, suspenders, etc., carried or worn on belt or haversack not being detached.

8. He then places clothing and equipment on the left half of blanket commencing in the following order from the rear: One pair of shoes, left sole down, right sole up, right shoe on the right, toes overlapping, with tops of both shoes turned back to show name; trousers and shirt, side by side, single fold to the front, shirt on the right; drawers on top of trousers and undershirt on top of shirt, underwear showing single fold to the front; one pair of socks across clothing, heel to front, toes to left; shelter-tent pins, heads overlapping, three to left, two to right; shelter-tent pole, folded with pin to right; meat can, with handle closed, hinge to left; meat-can cover, ring to left; knife, fork, and spoon, handles to left, edge of knife toward fork; first-aid package, ring up and to the front (exposing seal); canteen cup, to left of center, canteen to right of

center (concave curves to the right); other equipment placed as designated.

9. He then opens haversack and removes articles.

10. He then makes three folds of the inner flap, thus bringing suspension rings in line with upper edge of belt (lower third of flap folded inside).

11. He then places: Folded poncho on inner flap with longer edge of poncho on line with lower edge of belt, single fold to front; towel, folded to same dimensions, on top of poncho; toilet articles on towel; one pair of socks on haversack, in front of poncho, heels to the front, toes to left; extra pair of legging laces and shoe laces on top of and in center of socks; sewing kit in center of outer flap.

12. Brassards are placed on shelter half, opposite canteen cap, edge of buckle at left edge of shelter half.

13. The garrison cap, white cap, or watch cap is placed in the same position as the helmet, left side of cap on top, front of cap towards right.

14. The case, despatch, is placed in center of shelter half, opposite canteen cup, lower edge toward inspecting officer, flap open to show pencils and message book on flap.

15. The mask, gas, and carrier is placed on shelter half, opposite the helmet, under side down, flap open, and to front, mask to front of carrier.

16. The unrolled overcoat is placed on left edge of shelter half, neck at rear edge.

17. The reserve ration is placed on front of the outer flap of haversack.

18. Identification tags worn on the body are exposed for inspection.

19. Each man then assumes the position of Attention, toes twelve inches from edge of blanket, directly in rear of clothing.

20. The company commander then passes along the ranks, inspects the equipment, and directs the platoon leader to have packs rolled and the platoon assembled. The platoon leader then commands: **ROLL PACKS.**

21. Each man assembles his equipment and leaving it in its position on the ground at his feet, resumes the position of Attention.

22. All equipment being assembled, the platoon leader commands: **SLING EQUIPMENT.**

23. Packs are slung and belts fastened.

24. The platoon leader then causes the platoon to assemble and the inspection is completed.

(f) **EXAMINATION OF EQUIPMENT ON THE BUNK.**—When it is desired to inspect the equipment on the bunk, the bunk is made down, so that the stenciled name on the blanket is exposed along the center of

the foot edge of the bed. The equipment is then laid out as described in the subparagraphs following.

NOTE.—The right side of the bunk is the right side when standing at the head of the bunk, facing the foot.

1. The haversack is placed across the foot of the bunk, suspender side down, top even with the foot of the bunk, outer flap with meat-can pouch folded over and towards the head of the bunk, and pack carrier, with pack carrier binding straps inside, folded down and under the haversack. Pouches and carriers carried or worn on the belt are not detached. The cartridge belt, pack suspenders, and haversack binding straps are extended perpendicular to and to the edges of the bunk.

2. The shelter half and poncho are folded to the width and length of the inner flap of the haversack. The shelter half is placed across the belt and haversack, single fold towards the foot of the bunk, and against the bottom of the meat-can pouch so that about  $2\frac{1}{2}$  pockets of the belt are exposed on each side. The poncho is placed on top of the shelter half, single fold towards the foot of the bunk.

3. The shelter-tent pins, shelter-tent pole, meat can, meat-can cover, knife, fork, spoon, and first-aid package are placed on the bunk in the order named from head to foot between the pillow and the

haversack, centered along the middle of the bunk, and as prescribed in paragraph 8-5 (e) 8.

4. The canteen and canteen cup are placed on the bunk as prescribed in paragraph 8-5 (e) 8.

5. Articles normally carried in the heavy-marching order roll are not displayed on the bunk with the equipment.

6. The toilet articles and ration may be displayed on top of the poncho.

7. Special equipment is laid on the right side of the bunk as prescribed in paragraphs 8-5 (e) 12, 13, 14, 15, 16, 17, and 18, inclusive, making allowance for the restricted space and absence of shelter half.

8. The man stands at Attention at the right side of the head of the bunk.

(g) DISPLAY OF CLOTHING ON BUNK (MARINE CORPS).—

When it is desired to inspect clothing on the bunk, the bunk is made down so that the stenciled name on the blanket is exposed along the center of the foot edge of the bed. The clothing is then laid out as prescribed in the subparagraphs following.

1. From right to left in the order given the following articles are arranged on the part of the pillow towards the foot of the bunk: Cap frame, on its right side, visor to the right, right side of sweatband turned down exposing name; cap, garrison, winter

service, on its right side, with left lower edge turned back exposing the name in center of lining on right side; and cap, garrison, summer service, the same as cap, garrison, winter service.

2. From right to left in the order given the following articles are arranged nearly vertical against the bunk head piece: Covers, cap, insides to the front, exposing names; and hat, field, on its right side, inside to the front, right side of sweat band turned down exposing name.

3. Folded so that, when displayed, the name, stenciled as prescribed in Art. 15-25, Marine Corps Manual, will be legible from the foot of the bunk, the following articles are arranged from the edge of the pillow towards the foot of the bunk, each article overlapping the one previously listed: On the right side of the bunk, shirts, undershirts, scarfs, and gloves, cotton and woolen; in the center of the bunk, overcoat, coat, dress, coats, service, winter, and leggings, with an extra pair of shoe laces, legging laces, and marking outfit (stencil, etc.) on top; on the left side of the bunk, trousers, dress, trousers, service, winter, trousers, service, summer, drawers, knee, and socks.

4. Extended full length across the bunk below the articles listed in the preceding paragraph, buckles to the right and under side up with name legible



from the foot of the bunk, the belt, dress, belt, service, and belt, trousers, woven, are placed in the order given.

5. One pair of shoes, partially laced with ends of laces tucked inside of shoes, is displayed in the center of the bunk at the foot, left sole down, right sole up, right shoe on the right, toes overlapping, and tops of both shoes turned back to expose the name. Extra shoes with laces attached and folded in are placed under the bunk on the deck, toes to the foot and on line with the legs of the foot piece.

6. Box, clothing, barracks (if issued) is placed at the foot of the bunk, lid open, tray partially laid back, and contents neatly arranged. All articles of clothing are removed therefrom and displayed on the bunk.

7. Locker, steel (if issued) is opened with contents neatly arranged. All articles of clothing are removed therefrom and displayed on the bunk.

8. Bunk card holder (if issued) is suspended over the center of the top rail of the foot piece, with card properly filled out with the man's name, rank, etc.

9. The man stands at Attention at the right side of the bunk at its head.

8-6. MISSION.—Conservation of manpower is the mission of the medical detachment with a landing force. To accomplish this mission the medical de-

tachment endeavors to keep as many men physically fit for duty as possible, to give prompt and efficient treatment to wounded or incapacitated personnel, to provide for the collection and rapid evacuation of casualties, and to maintain and promote the morale of the combat units. As a part of this program instruction in first aid and sanitation is given as thoroughly as possible before a landing is ordered, all personnel detailed to participate in the landing are carefully examined to eliminate those physically unfit, measures for the prevention of disease and for sanitation are prepared, and arrangements are made for the procurement and distribution of medical supplies and equipment.

When landing, the company-aid men accompany their respective line units, and take their own medical equipment, the other medical-department personnel following. Dividing personnel and equipment lessens the possibility of total loss such as might occur if all medical-department personnel and equipment should be sent ashore in one boat and that boat be sunk. Deferring the landing of part of the medical detachment also automatically creates medical assistance in reserve. Medical field equipment should be loaded in boats with the unit to which it belongs and in inverse order to that required on landing. This system, called *the last in and first*

*out*, insures the immediate availability of the equipment needed for medical assistance.

In an actual engagement the important duties that medical-department personnel will be called upon to perform are: Relief of pain; arrest of hemorrhage; control of shock; immobilization of fractures; treatment of wounds and burns; and evacuation. These duties are performed on the firing line, at the dressing stations, and at field or other hospitals.

On the firing line first aid is rendered by company-aid men who advance with their company and are equipped and prepared to give the treatment required and to identify the wounded. The company-aid men should carry bandage shears for use in cutting away clothing or in making temporary dressings from material available, and knives for use in the preparation of splints, etc. When called upon to render first aid in the area of fire company-aid men should move in the proper direction by rushes, seeking all available shelter offered by the terrain while doing so.

After the initial first-aid treatment has been given casualties are removed to dressing stations at the first opportunity, those slightly wounded walking if possible, the others being transported. Litter bearers should not advance on the field under fire as to

do so is to invite disaster, for they may be killed by drawing the enemy's fire and the wounded subjected to similar exposure to fire.

On arrival at the dressing station supplementary treatment is given and the slightly wounded directed to return to their units. Those requiring evacuation should be sorted, tagged, and recorded and sent to the collecting station, if there be one, or to the beach evacuation station, those unable to walk being carried thereto by litter bearers.

In case it becomes necessary to establish a temporary camp it is the duty of the medical-department personnel to plan and advise in regard to necessary sanitary measures affecting the location of the camp. Three most important sanitary problems to be settled concern water, food, and the disposal of wastes.

## SECTION 2.—THE EXPEDITIONARY FORCE

8-7. GENERAL.—(a) When the force to be landed is composed of personnel and material embarked upon a designated mission of protection, occupation, or enemy attack outside the continental limits of the United States the term *expeditionary force* is used. The Commandant, U. S. Marine Corps, maintains a force of marines in a state of readiness for opera-

tions with the fleet that may be used to augment the size and power of the fleet landing force, as a component of an expeditionary force, or as an expeditionary force in itself. By Navy Department General Order this force of marines is designated the Fleet Marine Force and it is the duty of medical-department personnel with an expeditionary force of this type, or on field service as it is commonly called, that will be considered in this section.

(b) The Fleet Marine Force is a highly mobile body of troops composed of infantry, artillery, engineers, and aviation groups available for employment as a component unit of the United States Fleet and kept in the same state of readiness as other units of the fleet. For purposes of training it operates directly under the Commander in Chief, U. S. Fleet; it accompanies the fleet on the annual fleet problems and exercises and constitutes the force which is ready at all times to go on expeditionary duty.

*The medical department on field service.*

8-8. TASK.—The task of the medical department in the field is the conservation of manpower by the accomplishment of the following measures: (1) Instruction in first aid and sanitation, which should be given as thoroughly as possible before taking to the field; (2) Prevention of disease; (3) Collection

and treatment of the sick and wounded and their conversion into replacements whenever possible; (4) Procurement and distribution of medical supplies and equipment.

8-9. ORGANIZATION.—(a) The responsibility for the medical service of any force is vested in the senior medical officer attached to the largest tactical unit of the force. The basic large unit of the United States Marine Corps is the division. The normal chain of medical responsibility in descending order is: Force surgeon, division surgeon, regimental surgeon, and battalion surgeon.

(b) Each tactical organization larger than a company has a staff to assist the unit commander. Staff service is rendered by a team composed of executive staff officers and special staff officers. The surgeon belongs to the latter group. The function of the executive staff is that of direction, and the function of the special staff is that of operation.

(c) The medical personnel attached to an expeditionary force, U. S. Marine Corps, is divided into: (1) Attached medical troops, namely, medical units which are integral parts of combatant organizations and are known as company, battalion, and regimental medical detachments; and (2) Medical department organizations and supporting hospitals. In time of peace if the force landed be of such size that

the attached medical troops are insufficient to meet the needs of the organization, a supporting hospital of suitable type should be landed unless definitive treatment is provided aboard a hospital ship or other designated naval vessel.

(d) When an expeditionary force is landed in time of war, the supporting medical-department organization for a division is a medical battalion consisting of one headquarters and service company, and medical companies in accordance with the Tables of Organization, U. S. Marine Corps. Each medical company consists of four sections: Headquarters, collecting, hospital, and service. The company is designed to maintain evacuation from the unit in advance, establish one 72-bed hospital or two 36-bed hospitals, further evacuate cases in accordance with a prescribed plan, and to form a link in the chain of medical supply to the front.

The functions, distribution, and coordination of medical companies are the duty of the division surgeon under the division commander. If the force be medically independent of sea forces and the hospital organization of the medical department is insufficient, additional supporting hospitals may be required.

8-10. STAFF SURGEONS.—(a) There is normally a staff medical officer for each command larger than

a company. The purpose of the staff is to assist the commander to accomplish his mission. Teamwork and cooperation is essential to efficient staff functioning. Division, regimental, and battalion surgeons serve as their titles indicate. The duties of staff surgeons with an expeditionary force are as described in par. 8-3 (a).

(b) The senior medical officer attached to the force serves as force surgeon on the staff of the force commander and the whole medical department of the force is under his control. In addition to the general duties of a staff surgeon, the force surgeon has general supervision over all medical-department activities of the force, and is responsible for the sanitation of the occupied area; the collection, evacuation, and hospitalization of all sick and wounded; the preparation of reports, records, and returns; the procurement, storage, and distribution of medical and surgical stores; and the training and coordination of all the medical units of the force. He keeps himself informed regarding the tactical plan of the force, and in the light of that plan estimates the medical-department requirements for the operation; advises his subordinate medical-department personnel regarding his decision by a clear and concise order, plan, or annex to the operation order; maintains liaison with the force medical officer afloat;



and requires all unit medical officers to keep a record of and report to their commanding officers instances of valor or meritorious conduct by their personnel, and a daily written record of medical events of importance.

8-11. COMPANY HOSPITAL CORPSMEN.—One or more hospital corpsmen, designated company-aid men, are assigned to each combat company. During action they follow their company, give such first-aid treatment as is possible, and tag the sick, wounded, and dead. In stabilized situations they may establish local aid posts, but in open warfare and in moving situations this is not practicable. Effectives should be treated promptly and returned to the front line; other casualties should have first-aid dressings applied, hemorrhage controlled, and fractures temporarily immobilized. Ambulant non-effectives should be directed to proceed towards the battalion-aid station. Wounded requiring transportation should be assembled at a fixed place, preferably to the rear of the inner flank of the company, and this area should be designated by a conspicuous marker that can be readily identified by the collecting party. Company-aid men send information to the battalion surgeons by messages carried by litter bearers or walking wounded.

8-12. LITTER SQUADS.—(a) The litter squads form a part of the battalion medical detachment, and the bearers should be men assigned from other branches who have had special instruction in first-aid procedures and transportation of the wounded. The number of litter bearers should total not less than 2 for each 100 combatants and the medical and surgical equipment is prescribed by the battalion surgeon. Two bearers to a litter will ordinarily be enough but if the lines of communication are long or the terrain is rough and hilly, four will be needed.

(b) During an engagement, in order to reduce the number of noneffectives to a minimum, messmen, orderlies, and others who are not actually engaged in their regular duties should, when practicable, be employed to reinforce the litter men. Litter bearers and those assisting them ordinarily wear a red-cross brassard (an arm badge of white bearing a red cross) on the left arm and carry no arms. Against a savage or uncivilized enemy or one which does not comply with the "Rules of Land Warfare," however, it may be necessary to arm them, in which case they carry a pistol and omit the brassard.

8-13. PREPARATION FOR FIELD SERVICE.—(a) The EQUIPMENT, UNIFORMS, CLOTHING, AND PERSONAL EFFECTS to be taken will be governed by the nature of the expedition, the climate anticipated, and the baggage

space available. Uniform requirements will ordinarily be promulgated by the organization commander prior to departure. Naval officers and enlisted men serving with an expeditionary force of marines may wear the field uniform and insignia prescribed, respectively, for officers and men of the Marine Corps, except that on the right side of the garrison cap, instead of the emblem of the Marine Corps, they shall wear a half-size, bronze replica of the cap device of a commissioned officer of the Navy. Other insignia designation of rank or rating shall be in accordance with the regulations applying to the Navy working uniform.

(b) The **INDIVIDUAL EQUIPMENT FOR OFFICERS** is prescribed and issued in accordance with the Equipment, Supply, and Tonnage Tables of the Marine Corps; the baggage of officers is prescribed by the Marine Corps Manual; and the accessory equipment for officers is governed by the nature of the mission of the expeditionary force.

(c) The **INDIVIDUAL MARINE CORPS EQUIPMENT FOR MEN** of the Hospital Corps is issued by the Marine Corps quartermaster at the point of mobilization in accordance with Marine Corps equipment tables. Their individual medical equipment is issued by the medical officers.

(d) The table following shows the items of individual equipment that are issued to medical-department personnel serving with Marine Corps organizations in the field, in landing forces, or in training for such services.

	Medical Officer	Chief Petty Officer	Hospital Corps- men
Bag, clothing			1
Bag, field, canvas, o/d, w/shoulder strap	1	1	
(Haversack, officer's type, may be issued in place of.)			
Belt, pistol, web	1	1	1
Suspenders, for	1	1	
Canteen	1	2	2
Cover, for	1	2	2
Cup, for	1	2	2
Case, despatch and map	1	1	
Book, field message	3	3	
Book, memo	1	1	
Pencils, colored	3	3	
Glasses, field	1		
Haversack			1
Can, meat w/cover	1	1	1
Carrier, pack, haversack			1
Fork	1	1	1
Knife	1	1	1
Pouch, meat can			1
Spoon	1	1	1
Helmet, steel	1	1	1
Knife, Hospital Corps			1
Scabbard, for			1
Mask, gas	1	1	1
Packet, first aid	1	1	1
Pouch, for	1	1	1
Pad, cotton	1	1	1
Poncho	1	1	1

	Medical Officer	Chief Petty Officer	Hospital Corps- men
Protector, pad, cotton.....			1
Roll, bedding.....	1	1	
Roll, clothing.....	1	1	
Tag, identification.....	2	2	2
Tape, for, yards.....	1	1	1
Tent, shelter, each half, w/1 guy line.....	2	1	1
Pin, tent, round, for.....	10	5	5
Pole, for.....	2	1	1
Trunk, locker.....	1	1	
Whistle, officer's.....	1		
Basin, wash, collapsible.....	1		
Bucket, collapsible.....	1		
Cot, field.....	1	1	1
Frame, mosquito-net, cot.....	1	1	1
Net, mosquito, cot.....	1	1	1
Net, mosquito, head (when authorized by commanding officer).....	1	1	1
Stool, camp.....	1		

(e) CLOTHING.—NAVAL officers are not issued items of clothing. The kind and quantity of Marine Corps uniforms required, worn with bronzed naval insignia, may be purchased by officers of the Navy after arrival at a Marine Corps post. It is usually impracticable to wear naval service uniforms in the field.

Hospital corpsmen transferred to a Marine Corps post or organization for expeditionary service, or training for expeditionary service are issued the following articles of clothing gratuitously: Badges,

rating, or mark, Hospital Corps (as required); 1 belt, trousers, woven; 1 belt, service, with buckle; 1 cap, garrison, service, summer; 1 coat, service, winter; 1 cover, cap, green; 1 cover, cap, khaki; 1 frame, cap; 1 hat, field, with head strap; 1 ornament, hat, bronze; 2 ornaments, collar, bronze, pair; 1 overcoat (when required by climatic conditions); 1 scarf, service, cotton; 2 shirts, cotton or flannel; 1 shoes, leather, pair, or 1 shoes, field, pair; 2 trousers, service, summer; and 1 trousers, service, winter.

(f) MEDICAL DEPARTMENT SUPPLIES AND EQUIPMENT.—

(1) Ample preparations should be made for the proper supply of instruments and dressings and other equipment for an expedition in accordance with the length and character of the service. An inspection should be made to see that the medicines, instruments, etc., are in proper condition. Reference should be made to the Supply Catalog, Medical Department, U. S. Navy, for the material allowances and for itemized contents of the various units. This equipment shall be inspected semiannually and tagged with the date of inspection.

(2) The quantity of medical supplies and the type of equipment to be furnished each of the medical units in combat are subject to variable factors, such as available transportation facilities, anticipated

number of casualties, possible changes in military plans, stabilized or mobile warfare, etc.

(3) Medical material for each medical unit should accompany that unit's personnel in advance or withdrawal.

(4) Resupply of medical material is by automatic property exchange.

(g) IDENTIFICATION TAGS.—All officers and men shall wear identification tags as prescribed.

(h) MEDICAL RECORDS.—When a short engagement is anticipated, loose leaves from health records, Form F cards, and diagnosis tags ordinarily will be the only material needed for keeping medical records. Upon return to the base the medical entries are to be inserted in the proper health records. When a longer engagement is anticipated, such records will be provided and kept as the force surgeon directs.

(i) ARMS.—Medical-department personnel ordinarily carries no arms but wears a brassard (an arm badge of white bearing a red cross) on the left arm. Against a savage or uncivilized enemy or one which does not comply with the "Rules of Land Warfare," they may carry pistols and omit the brassard.

*Functions of medical units in the field.*

8-14. (a) PLANS AND ORDERS.—An operation order is the medium by which a commander conveys his

will to his subordinates for a tactical operation. Staff surgeons must comprehend the operation order and have an accurate mental or written estimate of the situation upon which to base the medical plan or order that will be applicable to field organizations.

(b) **GENERAL PRINCIPLES.**—1. Medical troops attached to a combatant unit remain with and serve this unit in camp, on the march, or in combat.

2. All medical arrangements are based upon and conform with combat orders and plans.

3. Contact normally is established and maintained in combat from rear to front.

4. Military necessities, not humanitarian reasons, govern the disposition of casualties.

5. During action, treatment and return of effectives to their combat units has priority.

6. In the execution of collection, evacuation, and hospitalization the requirements of the military situation are paramount.

7. Casualties are collected and evacuated in the axis of their organization.

8. Normally a medical unit evacuates casualties no farther to the rear than its own station.

9. A constant sorting and classification of casualties takes place from the advanced positions to the rear.



10. No cases are sent farther to the rear than their own condition or the military situation warrants.

11. The general movement of the seriously wounded is to the rear until they have reached a medical establishment or hospital where definitive treatment can be undertaken.

(c) ECHELONS OF MEDICAL ASSISTANCE.—The professional attention given casualties is the responsibility of the personnel of the medical units in the field. Such personnel should be thoroughly trained in the sorting and treating of casualties and litter bearers, particularly, need to be drilled in this work. Medical assistance is rendered to the wounded as follows:

1. COMPANY AID.—*Location*.—About 100 yards in the rear of the firing line if the situation is stable, or with the troops if in attack. *Personnel*.—One or more hospital corpsmen termed company-aid men. *Employment*.—In attack company-aid men administer first aid to the wounded where they fall, place the wounded in a protected spot, if possible, and continue to advance with their company; when the situation is stable they serve as dressers in the rear of the firing line. *Evacuation*.—Casualties from company aid unable to return to their units are evacuated by battalion-aid station personnel from the rear,

those able to walk doing so, all others being transported by litter bearers.

2. BATTALION-AID STATION. — *Location*. — Depending on the terrain and available shelter, about 300 to 800 yards in the rear of the firing line in a defiladed area near the natural line of drift of wounded to the rear. *Personnel*.—Battalion medical officers, hospital corpsmen, and litter bearers. *Employment*.—Evacuates casualties from company aid, returns effectives to their combat units, treats and records casualties. *Evacuation* from this point of medical assistance is by personnel attached to the collecting station.

3. REGIMENTAL MEDICAL HEADQUARTERS.—*Location*.—In the rear of the battalion-aid stations. *Personnel*.—Ordinarily the regimental and assistant regimental surgeons, hospital corpsmen, and litter bearers. *Employment*.—Maintenance of contact with battalion-aid stations, furnishing of medical supplies to the battalions, preparing of reports and returns, coordination of evacuation of wounded and sick from and sanitation of the regimental area. When a regiment is acting independently the regimental medical headquarters becomes the echelon of medical assistance termed the regimental-aid station.

4. COLLECTING STATION.—*Location*.—Depending on the terrain and available shelter, and avoiding sensitive points, usually about 300 to 1,200 yards in the

rear of the battalion-aid stations, at or near the natural line of drift of wounded to the rear. *Personnel*.—The collecting section of a medical company composed of a liaison group, a collecting-station group, a litter-bearer group, and additional litter bearers assigned to this duty, as needed, from other units. *Employment*.—The liaison group maintains contact with forward medical units. The collecting-station group establishes a collecting station at a point giving protection from enemy fire and as near the battalion-aid stations as possible where it sorts the wounded, reapplies dressings if necessary, treats shock, and gives other necessary treatment, records and verifies diagnosis tags, and serves hot foods and drinks. The litter-bearer group brings in the wounded from the battalion-aid stations and, with other litters and blankets, goes out for additional wounded. *Evacuation* from the collecting station is by ambulances from the ambulance station.

On the march, when not in the presence of the enemy, temporary collecting stations are established along the route to provide temporary shelter for men falling out from illness or injury. These stations are evacuated by the ambulances following the troops and the casualties carried to the camp hospital station.

5. AMBULANCE STATION. — *Location*. — Ordinarily about midway between the collecting station and the

advanced-hospital station, on firm ground, and in a sheltered area. *Employment*.—As a control point from which ambulances are sent forward to carry nonwalking wounded from the collecting station to the advanced-hospital station and then return to the ambulance station with litters and blankets furnished in exchange for those in use by the wounded. When loaded ambulances pass the ambulance station on their way to the rear a regulating officer there sends others forward to replace them. Ambulances also are used to evacuate nonwalking wounded from the advanced-hospital station to the rear. When conditions permit, they may be sent out to carry wounded from the battalion-aid stations to the collecting station.

6. ADVANCED-HOSPITAL STATION.—*Location*.—About 4 to 6 miles from the front, in a protected area on or near a good road on the route of evacuation from the front to the rear. *Personnel*.—One platoon of a medical company, one medical company, or two medical companies, depending on the situation. *Employment*.—A relatively lightly equipped hospital, capable of free movement in the field, in which all sick, injured, or wounded received are recorded, sorted, grouped, and properly cared for. Wounds are cleaned and redressed and emergency surgical operations to save life and to control serious

hemorrhage are performed when necessary. Except in special situations the advanced-hospital station acts as a clearing station and a relay in the evacuation system rather than a hospital, and to be fully effective must be capable of quickly evacuating all wounded so that it can advance as an active part of the field force.

The advanced-hospital station may become a rear-hospital station by a rear-hospital station advancing and taking over the functions of the advanced-hospital station. *Evacuation* is to the rear by ambulance as safely and as rapidly as the condition of the patient and the situation permit.

**7. REAR-HOSPITAL STATION.**—*Location.*—At a sufficient distance in the rear of the advanced-hospital station to permit its functioning (1) as a stationary hospital for definitive treatment of evacuated wounded if the situation permits, or (2) to advance beyond and take over the duties of the advanced-hospital station. *Personnel.*—Normally comprised of the second medical company. *Employment.*—As a stationary hospital in the rear for the definitive treatment of cases evacuated from the advanced-hospital station when the operations are stabilized and farther advance is not likely. But if the advance is in progress, this station advances beyond the advanced-hospital station and assumes its func-

tion, the former advanced-station hospital in turn becoming the rear-hospital station. Such "leap-frog" advance continues throughout the period of mobility of the operating forces. *Evacuation* is to the base or field hospital, if either one has been established, or to a hospital ship or other suitable vessel designated to provide definitive treatment.

8. ADDITIONAL HOSPITAL ASSISTANCE.—Should hospital support be required in addition to that provided by the hospitals established by the medical companies, and in the absence of a hospital ship or other vessel designated to provide definitive treatment, a field hospital adequately manned and supplied to meet the requirements of the forces landed is established.

9. All aid stations, hospital stations, and dressing points should be properly designated by a red-cross flag by day and a green light at night unless orders to the contrary are issued.

### SECTION 3.—SHIP BATTLE DRILL

#### GENERAL

8-15. Battle is the final objective of navy units and in the organization of a ship primary consideration is given to preparation for efficiency in battle. To attain battle efficiency it is necessary that the mem-

bers of the crew of a ship be trained in the duties they must perform in battle. They first must be trained until they become expert in their duties as individuals, and next they must be trained in co-operation and team work with the others in their organized group until the group becomes a smoothly functioning one, ready for battle.

To provide for such training and to develop proficiency in the performance of their duties, exercises, drills, and instruction for the personnel of a ship are regularly held. With such activities, exercises, and drills the medical department is concerned for it is necessary that it "shall be at all times prepared for emergencies, especially during drills, fueling ship, and other evolutions," and "it is important that personnel of the medical department be immediately available for aseptic work."

The most important of the drills carried on by a ship concerns the preparation of the ship for battle and is known as **Battle Exercises**. These exercises demonstrate the effectiveness of the ship's battle organization, and are held for the purpose of making that organization fully effective. They are not to be regarded as periods of training for the reason that gun crews and other units are expected to be expert before the ship goes into action through having been brought to thorough proficiency by training at other

times. The discussion of battle exercises that follows will consider: (a) Clear Ship; (b) Conditions of Readiness for Action; (c) General Quarters; and (d) Gas Defense.

"Clear Ship" is an evolution in which the ship is cleared for battle by the removal of all material that is not essential to the fighting of the ship and which, if left on board, might be the cause of fire and casualties to personnel. The evolution of "clear ship" is divided into two stages designated as: 1. Strip Ship; and 2. Clear Ship for Action.

A ship is "stripped" when war is impending and it is done by landing (putting on shore) all loose and inflammable articles and furnishings, such as chests, lockers, bulletin boards, unnecessary stanchions, davits, and canopy frames, unnecessary clothing of officers and men, etc., spars which can be spared, and all boats except such as are designated for retention by the commander in chief. Articles so essential to a ship that they cannot be left on shore, such articles, for example, as are required in daily use and which would be valuable after an action, are not disposed of until action with the enemy is imminent and the second stage of clear ship takes place.

A ship is "cleared for action" when action with the enemy is imminent. When the order to "clear ship for action" is given, all such articles as have been



kept on board instead of being landed in the strip-ship stage must be so disposed of as to provide against fire and splinters and insure an uninterrupted service of the batteries. Such disposition consists of throwing the articles overboard, stowing them below decks, or stowing them behind armor. The general duties in connection with "clear ship for action" are shown in detail on the ship's battle bill.

In either stage of the evolution of "clear ship" in preparing the ship for battle, the medical department, having arranged for distribution of the medical supplies and equipment to battle dressing stations, and first-aid supplies to battle stations, takes over and equips space adjacent to each battle dressing station cleared of peacetime usage and assigned to the medical department for the receipt of a considerable number of battle personnel casualties, for example, 10 percent of the crew at each battle dressing station.

Battle dressing stations are located, when possible, one forward and one aft, with a third amidships on some large vessels. Being behind armor they are also known as medical protected stations, and the one offering the best facilities for operating after battle is equipped with that purpose in view. The best surgical outfit and the best sterilizing outfit should be placed at that station.

During the period of a war a ship is at all times in some "condition of readiness for action", depending upon the requirements of the existing situation. These conditions of readiness for action concern both material and personnel, are designated as conditions 1, 2, and 3, and the plans for preparation of the ship for battle take cognizance of them.

Readiness for Action, condition 1.—In this condition the entire crew, officers and men, is at battle stations, and there is complete readiness for action in all respects. This condition of readiness is taken if reports of enemy movement indicate that action is possible; when a ship is proceeding to sea and before it has passed the last antisubmarine net or barrier and is maintained until a different condition of readiness is signaled or as previously directed by specific orders; and immediately the enemy is sighted or reported in sight by a vessel in the vicinity.

Readiness for Action, condition 2.—In this condition approximately one-half of the crew is at battle stations; otherwise the ship is ready for action. This condition is taken when the visibility is below 6 miles in daylight, or at night in an area within which enemy surface vessels may be encountered but no reports of the enemy have been received. Meeting the enemy while in condition 2 will be in the nature of a surprise. The organization plan of a ship must

provide for promptly passing from this condition to condition 1.

Readiness for Action, condition 3.—In this condition approximately one-third of the crew is at battle stations for 4-hour watches; the ship otherwise being in readiness for action. This condition is used day and night when cruising in an area within which contact with enemy surface ships is improbable, unless another condition of readiness has been prescribed.

The material condition of the ship varies somewhat in the different readiness-for-action conditions and is indicated by letters. One letter closes hatches, doors, etc. to produce the maximum of watertight integrity and defense against gas and chemicals, and this material condition, in a major engagement is synchronous with the personnel condition in which all hands are at battle stations. This material condition is modified by opening certain doors, hatches, blowers, etc., thereby permitting enough air conditioning through artificial and natural ventilation to make battle stations more habitable. Additional relaxation of material closures permits better ventilation, improves the habitability of battle stations, and is used during war cruising, especially in tropical climates.

"General Quarters" is the principal battle exercise held on board ship and the object of this exercise is to make sure that the ship is in all respects ready for battle. This exercise requires the entire ship's company to be at battle stations and whenever it is held all the preparations and dispositions that would be made in clearing ship for action are carried out, except that articles that would be removed in preparing for actual battle are not so removed but are labelled "overboard."

The signal for this exercise is: (a) The ringing of the general-alarm gongs; (b) Sounding the call "General Quarters" on the bugle; and (c) Passing the word "general quarters" over the interior communication system. On hearing the signals every officer and man proceeds to his respective station "on the double" and on arrival there they perform the same duties they would in actual battle.

At "general quarters" various conditions of battle are simulated, with the enemy supposedly attacking under water, on the surface, or in the air. On different occasions the ship will be presumed to be: At anchor; under way; repulsing an attack by destroyers; fighting another similar or a distinctly different type of ship; engaged in a fleet action; repulsing several vessels attacking at once; etc. During the exercise casualties also are to be simulated in much

the same manner and at such time as to closely approximate a real casualty.

The general duties of the medical department personnel at "general quarters" with the ship in Readiness for Action, condition 1, are as follows: Officers and men of the medical department assigned to the battle-dressing stations proceed to their stations, taking with them all patients from the sick bay and such apparatus and material as are listed for that purpose and may be required. Other men of the medical department proceed to stations assigned. It is not necessary or expedient to remove the sick at each drill, but it should be practiced often enough to insure rapid and comfortable transportation for the sick. Crew personnel trained as litter bearers during general quarters are assigned to damage control repair parties and other stations and when the opening of hatches and doors is directed by central station, they become available for transportation of the wounded. When "general quarters" is held under the condition of Readiness for Action, condition 2, the medical department personnel at dressing stations maintains communication watches, with the personnel reduced one-half; under Readiness for Action, condition 3, communication watches are maintained and routine care of the sick is carried on.

The casualties to be simulated during exercise at "general quarters" are such as would cause damage to the material condition of the ship. It must be remembered that a naval vessel is built, equipped, and manned for the purpose of inflicting damage upon an enemy, and, as the purpose of the enemy is the same, it is probable that the opposing forces will both receive damage in an engagement. In a ship's battle organization provision is made to minimize the damage inflicted on the ship by an enemy. This battle function is termed "damage control" and is directed from the central station of the interior communication system. As mobility and floatability of the ship are essential to the maintenance of effective firing by the ship's batteries, "damage control" devotes much attention to the watertight and gas-tight doors and hatches by which a ship is divided into compartments and the ship's watertight and gastight integrity is maintained.

In an engagement material damage on a ship will seldom occur without concurrent damage to personnel, for whose care the medical department is responsible. But because the majority of medical department personnel is located at the battle-dressing stations which are located in compartments shut off from the rest of the ship, the wounded must remain where they are until such time as modifica-

tion of the tightly closed condition of the ship permits their removal to a battle dressing station. In the interim their care is dependent upon the first-aid knowledge of their companions in the damaged compartment. As soon as the situation warrants, repair parties proceed to damaged compartments to make such repairs to material as are possible and litter bearers begin to move the wounded. Hospital corpsmen accompany repair parties to direct and assist in first aid and transportation of the wounded but an adequate number must remain at the battle dressing stations in order to assist the medical and dental officers in treating casualties.

#### TASK

8-16. (a) The primary duty of the medical department in battle is the conservation of effective manpower. In carrying out this part of its task the organization of the medical department must be in accord with two fundamental principles of "damage control" requiring that: (1) The watertight integrity of the ship, regardless of the wounded, must be maintained; and (2) Fire power as delivered by the batteries of the ship, regardless of the wounded, must be maintained. Therefore, consistent with these principles, medical material and personnel must be so distributed and all ship's personnel so

trained in first aid and the transportation of the wounded that first aid can be rendered with maximum effectiveness and with the minimum of interference with the ship's battle organization. Also, in conserving effective manpower at the guns or elsewhere, it must be the policy to care for the wounded in the following order of priority:

1. Those with minor injuries and able to resume their duties, either actively or as reliefs, should be given prompt treatment at or near the scene of injury and returned immediately to their battle stations. This treatment presumably will be given by nonmedical personnel using the first-aid material present in the compartment or at the guns.
2. Those seriously injured should be given such treatment as is possible during action, their major treatment awaiting the end of the action. It is the assumption that personnel casualties will occur about the area of material damage and first-aid treatment, especially lifesaving measures such as the application of a tourniquet, etc., should be given by anyone at the scene. The suffering of noneffectives should be relieved by morphine injection and they and the dead should be laid aside so as not to interfere with the fighting of the ship,



the dead being placed out of sight of the men in action, insofar as possible, and collected after the action.

(b) A secondary duty of the medical department in battle concerns the prior training of the entire crew in simple lifesaving first-aid measures so that such measures can be carried out during action by any individual present where injuries occur. In this training special attention should be given to:

1. Handling, lifting, and transportation of casualties, with and without litter.
2. Control of hemorrhage, particularly by the application of a tourniquet to the arm or the leg.
3. Sterilization of wounds with iodine and the application of dressings (first-aid packet).
4. Resuscitation of the apparently drowned and the electrically shocked.
5. Emergency treatment of burns and chemical and gas injuries.
6. Recognition of the need for immobilization of fractures and methods of splinting and lifting.
7. Control of shock and pain and the relief of suffering by administering morphine by syringe or syrette.

All division officers, litter bearers (bandsmen) and certain other key men should be given special in-

struction in advanced first aid, including gas casualty first aid. Such specially trained persons act as first-aid supervisors.

#### ORGANIZATION

8-17. The battle organization of the medical department of a ship should provide for peacetime preparedness and wartime preparedness.

##### *Peacetime preparedness.*

8-18. The objective of the peacetime battle organization is to maintain a state of readiness that is consistent with economy and peacetime operations of the ship and will permit the final preparation for battle with the minimum delay. To this end material and personnel readiness must be maintained at all times.

8-19. MATERIAL READINESS.—(a) All permanent installations at battle dressing stations must be maintained in a condition of readiness. This will include: (1) Upkeep of reserve water supply tanks and fixtures; (2) Upkeep of electric water heating systems; (3) Provide lockers at battle dressing stations for stowing battle dressings, equipment, and supplies at "Clear Ship"; (4) Upkeep of permanently installed sterilizers; and (5) Upkeep of electrical leads for battle lights and portable sterilizers.

(b) Have on board a sufficient number of first-aid boxes. (Approximately 5 percent of the crew.)

(c) Have on board large first-aid lockers to correspond in number and location to the collecting stations in battle.

(d) Keep on hand all equipment of a stable or durable character for rigging the battle dressing stations and provisioning all first-aid lockers, boxes, and bags.

(e) Stow all equipment and supplies, except items in daily use, which are intended for the battle dressing stations and first-aid lockers, etc., in the battle dressing storeroom. Certain items which will deteriorate, such as adhesive tape, etc., should be used from the battle dressing storeroom and replenished with fresh items upon receipt of new requisitions. The equipment and supplies stowed in the battle dressing storeroom should be segregated according to the place for which they are intended to facilitate their transfer at "Clear Ship."

(f) An emergency wartime requisition should be prepared and kept in the commanding officer's safe for forwarding upon mobilization.

(g) Certain spaces, in addition to the regular protected battle-dressing stations should be designated as "Wounded Collecting Stations."

(h) Gas decontamination stations should be established.

8-20. PERSONNEL READINESS.—(a) All non-medical personnel must be instructed and trained in rendering first aid in battle. This is accomplished by instructing all hands in the crew, by divisions, in elementary first aid and in handling and transporting the wounded, and by giving special quarterly instruction in advanced first aid, including gas casualty first aid, to all division officers, litter bearers (bandsmen), and key men of the crew.

(b) All medical personnel must become thoroughly acquainted with the provisions of the ship's battle bill that concerns them and so well instructed in them that each one knows his battle station, exactly what he is to supply, and what he is to do when he arrives at his station.

*Wartime preparedness.*

8-21. Upon mobilization for war the ship ordinarily proceeds to a navy yard or naval base to "strip ship" and prepare for war. The preparations of the medical department are carried out in accordance with its "strip ship" bill and concern both material and personnel.

8-22. MATERIAL.—(a) All nonessential items are transferred ashore in accordance with the ship's "clear ship" bill.

(b) At this time the following work must be accomplished: (1) Procure wartime supplies (as per requisition on file in the commanding officer's safe); (2) Manufacture an adequate supply of large and small battle dressings; (3) Prepare identification tags for all hands; (4) Provision and distribute first-aid boxes and bags; (5) Provision and distribute portable emergency lockers; (6) Establish and equip gas-decontamination stations; (7) Replace all mattresses with hair mattresses (if available); (8) Stow miscellaneous items constituting missile hazards in medical storeroom; (9) Overhaul sterilizers; and procure spare heating units and portable battery spotlights; (10) See that all wounded collecting stations and gas casualty first-aid stations are marked plainly with red letters. All routes leading to battle dressing and collecting stations should be plainly indicated by an arrow and a red cross, and hatchways leading up from the dressing stations should be marked "Access" in red letters; and (11) Distribute medical supplies to widely separated storerooms so that they may be readily accessible and guard against total loss in case of a shell hit.

8-23. PERSONNEL.—(a) Upon mobilization the full complement of hospital corpsmen and litter bearers should be procured.

(b) Immediately proceed with the intensive training of: (1) The crew in first aid, including the administration of morphine and transportation of the wounded; (2) Medical patrols and nonmedical first-aid men; and (3) Surgical teams.

8-24. "CLEAR SHIP" is carried out when a battle is expected and ordinarily may be accomplished in two phases but circumstances may require that it be done in one operation.

8-25. PHASE I.—(a) *Material*.—(1) Rig and equip battle dressing stations; (2) Transfer all health records and the Journal of the Medical Department to the main battle dressing station, and stow other records and files in the medical storeroom; (3) Move biologicals to ship's refrigerators; (4) Pass out first-aid packets to all hands; (5) Throw contents of acid and ether chests overboard; (6) Check all first-aid boxes, portable lockers and first-aid bags, and provide with syrettes of morphine; (7) Issue first-aid bags to stations having more than one man and not more than seven men; (8) Throw overboard readily inflammable gear (waste, polish, oil, floor wax, brooms, squilgees, etc.); (9) Remove typewriters, X-ray equipment, dental lights and engines, cabinets, laboratory and dispensary equipment to medical storeroom, and all miscellaneous items that may constitute missile hazards; (10) Distribute alcohol, mor-

phine sulfate, morphine and atropine, and extra blankets to battle dressing stations; (11) Remove surgical outfit (surgical rolls) from operating room to forward battle dressing station, and other items of equipment to battle dressing storeroom; (12) Issue Hospital Corps pouches equipped with morphine syrettes to each hospital corpsman; (13) Issue brassards (badge, arm, red-cross) to all medical personnel and litter bearers; (14) Fill reserve water tanks at battle dressing stations; (15) Provide emergency rations, and coffee, tea, etc., for battle dressing stations; (16) Distribute two (2) Thomas leg splints to each medical patrol; (17) See that metal litters are at their proper locations; and (18) Stow bedding.

(b) *Personnel*.—Establish a watch at battle dressing stations after they are rigged.

8-26. PHASE II.—(a) *Material*.—(1) Lash up all bunks in sick bay; (2) Turn on water heaters and sterilizers at battle dressing stations; and (3) Equip litters with blankets and pillows.

(b) *Personnel*.—(1) Transfer all patients from sick bay to forward battle dressing station; and (2) Establish "condition" watch in accordance with ship's battle bill.

8-27. All medical material should be in its proper place and all medical personnel in their respective

parts of the ship when battle is joined, for with the ship in the condition of watertight integrity there is little or no opportunity for improving material or personnel readiness.

*First aid during battle.*

8-28. BY THE CREW.—With the ship in the condition of watertight integrity the responsibility of rendering immediate first aid to the wounded at stations and in spaces where medical personnel is not available rests on nonmedical personnel who make use of the first-aid material at hand. In the absence or incapacitation of an officer, the senior first-aid supervisor directs the first-aid work.

8-29. BY THE MEDICAL PATROLS.—Medical patrols composed of one hospital corpsman and two litter bearers render such first aid as possible during condition of water-tight integrity. They move with the repair parties and render such first aid as may be necessary at the scene of the casualty and return the non-effectives to the wounded collecting stations insofar as may be possible. They move the dead away from the scene of action, but make no attempt to collect them while the battle is in progress.

8-30. BY THE SURGICAL TEAMS.—The surgical teams and other personnel assigned to the protected battle dressing stations do not leave their stations to render



first aid while the condition of watertight integrity is set. They render such first aid as may be necessary within the watertight confines of the battle dressing stations to personnel injured in the compartment or brought in by the medical patrols. The primary functions of the medical personnel at the battle dressing stations is to render major first aid after the battle.

*The medical department after battle.*

8-31. After battle, or during a major lull in the battle, the medical-department personnel remains at its stations unless otherwise ordered. The work of the medical department after an engagement resolves itself into four separate functions as follows: (1) The collection of the wounded; (2) The treatment of the wounded; (3) The evacuation of the wounded; and (4) The care and disposition of the dead.

8-32. COLLECTION OF THE WOUNDED.—As soon as the condition of watertight integrity is unset, each medical patrol reports to the medical officer with a tally of the wounded, and awaits further instructions. A Hospital Corps watch is then established at each station where wounded are located.

8-33. TREATMENT OF THE WOUNDED.—The surgical teams proceed to the various wounded collecting stations to render such treatment as may be indicated.

After all the wounded have been seen and an accurate record obtained it may be advisable to concentrate them at fewer places. In case another engagement is anticipated, they should be moved to the protected spaces.

8-34. EVACUATION OF THE WOUNDED.—The seriously wounded and noneffectives should be transferred to a hospital ship or a hospital ashore at the first opportunity consistent with their welfare. Patients with minor wounds who may be returned to duty in a few days should be retained on board. Patients transferred to a hospital ship or a hospital on shore should be tagged and be accompanied by the customary records, if time and facilities permit.

8-35. CARE AND DISPOSITION OF THE DEAD.—After the wounded have been collected, all litter bearers, under the direction of the medical officer, proceed to collect, identify, tag, and prepare a list of the dead. The dead are placed in such spaces as the commanding officer may direct. The care, the length of time they will be kept on board, and the final disposition of the dead depends upon several factors, namely: (1) The number of dead; (2) The atmospheric temperature; (3) The material condition of the ship; and (4) The distance from port.

8-36. REPORTS OF KILLED AND WOUNDED.—As soon as possible after a battle the medical officer care-

fully makes out reports of the killed and wounded and sends one copy to the commanding officer and another, via the commanding officer, to the commander in chief.

### *Gas defense.*

8-37. The medical department's function in gas defense is advisory only. The providing of gas masks, impregnated clothing, and other measures for the prevention of gas casualties are the responsibility of another ship's department.

There should be an adequate number of decontamination stations throughout the ship, each of which should be equipped with fresh-water showers. A portable first-aid locker should be kept in readiness and installed at each station at "Strip Ship." The location of these stations is determined by the ship's organization.

8-38. THE MEDICAL DEPARTMENT IN GAS DEFENSE.—After exposure of personnel to war chemicals (vapor or liquid) the treatment of those exposed becomes the responsibility of the medical department.

Medical personnel are assigned to decontamination stations in accordance with the ship's organization bill. They man their stations when the word "Gas Attack" is passed, and should wear impregnated clothing, rubber gloves, and have gas masks available for use if necessary.

8-39. TREATMENT OF "GASSED" CASES.—(a) In treating personnel who have been exposed to war chemicals the policy should be: (1) To decontaminate those cases showing little or no disability and return them to their battle stations. This group includes those who have had their skin only exposed to a vesicant agent; and (2) To render first aid and follow-up treatment to those who are incapacitated by chemical agents. This group includes those who have inhaled gas (lung casualties) or who have had prolonged exposure to vesicants prior to decontamination. If the vesicant remains on the skin over 15 or 20 minutes, a burn will result.

(b) Although detailed written instructions should be a part of each decontamination first-aid locker's contents, in general the procedure should be as follows: (1) After gas attack or when word is passed, personnel who have been exposed start to the nearest decontamination station by a designated route; (2) Remove all clothing and gas mask before leaving weather deck to go below; (3) Proceed to decontamination station; and (4) Apply for decontamination.

(c) DECONTAMINATION.—(1) Each man is rapidly inspected for stains from "mustard liquid." Such areas should be swabbed several times with carbon tetrachloride, using a clean cloth or cotton for each application.

(2) Each man takes a full shower bath, using plenty of fresh, hot water and strong soap, making a good lather.

(3) Each man is again inspected by the hospital corpsman, and if there is no disability, he leaves the station by the exit door.

(4) Each man obtains clean clothing and returns to his battle station.

*Special notes on Lewisite.*—The use of Lewisite as a spray is possible. Burns from this liquid appear as grayish blotches, usually within 15 to 20 minutes after exposure. These areas should be scrubbed with 5-percent sodium hydroxide solution at once. After the bath the burns should be covered with ferric hydrate paste and a dressing applied.

*Special notes on mustard gas.*—The skin burns and irritation from mustard gas requires 2 to 6 hours for development. If the man is properly decontaminated, burns may not occur, and the sooner after exposure the decontamination occurs, the less the likelihood of serious burns.

(d) AFTER DECONTAMINATION, all men who are able to do so should report to their battle stations. The hospital corpsman at the decontamination station must use his best judgment to determine which men need further treatment. Those who have inhaled

the gas, or whose faces have been splashed with liquid vesicant, may become serious casualties. Such men and others unable to return to their battle stations after being thoroughly decontaminated will be evacuated to the nearest battle dressing station by litter bearers if necessary.

*Lung casualties* must be kept flat on their backs, moved by litter to a battle dressing station, and administered oxygen.

*Vesicant burns* about the face, eyes, mouth, etc., should be treated by frequent bathing with boric acid solution.

*Extreme mustard or Lewisite burn cases* should be moved to a battle dressing station and treated by a medical officer.

*All cases transferred to the battle dressing stations must be thoroughly decontaminated before being moved to those stations.*

## CHAPTER IX

### TENT DRILL AND SHELTER

#### SECTION 1—PITCHING SINGLE SHELTER TENTS

9-1. PURPOSE.—The purpose of this instruction is to enable a commander to establish his unit rapidly and correctly in single shelter tents, arranged in a neat and orderly way.

9-2. FORMATION.—Normally platoons form in line and companies form in column of platoons to pitch shelter tents. If the terrain does not permit this formation, the company commander indicates the general disposition for platoons.

9-3. COMMANDS.—(a) 1. FORM FOR SHELTER TENTS TO THE LEFT (RIGHT), 2. MARCH, 3. DRESS RIGHT (LEFT), 4. DRESS, 5. READY, 6. FRONT, 7. COUNT OFF. (b) PITCH TENTS.

9-4. EXECUTION.—(a) FORMING.—(1) At the command FORM FOR SHELTER TENTS TO THE LEFT (RIGHT), the second in command moves to a position on the right of the guide who is on the right of the right man of the front rank. The messenger takes position on the left of the left man of the rear rank.

(2) At the command MARCH, all squads, except the front squad, face to the left in marching and

step off. Squad leaders by giving appropriate commands: 1. BY THE RIGHT (LEFT) FLANK, 2. MARCH, and 1. SQUAD, 2. HALT, move their squads into line abreast of the squad(s) already on line.

(3) At the commands 3. DRESS RIGHT (LEFT), 4. DRESS, 5. READY, 6. FRONT, and 7. COUNT OFF, given by the platoon leader the entire rank executes these movements as prescribed in paragraphs 5-4 and 5-5.

(b) PITCHING TENTS.—(1) At the command PITCH TENTS, each odd-numbered man marks a spot with his left heel; this marks the position for the front pole of the tent.

(2) Men then unsling equipment and place it in front of them; open their packs and remove their shelter halves, poles, and pins.

Odd and even numbers (Nos. 1 and 2; Nos. 3 and 4; etc.) pitch tents together. They spread their shelter halves on the ground the tent is to occupy, triangle to the rear, buttons to the center, the odd numbered man's half on the right.

(3) They then button the halves together along the ridge. The odd numbered man adjusts his pole, inserts its small end through inner pair of front eye-lets of the tent, and holds the pole upright at the point previously marked by his heel. The even numbered man pins down the front corners of the tent



in such a manner that the corner pins and front corners of the tent and front pole form a straight line; he then measures off, on the tent rope, the distance from the base of the front tent pole to the right or left front tent pin and drives the front guy pin this distance in front of the front tent pole. He places the loop of the guy rope alongside the front guy pin and hands the other end to the odd numbered man who passes it through the outer pair of the front eyelets from top to bottom, and ties it in a knot so that it will hold the pole vertical when the rope is taut.

The even numbered man then places the loop of the guy rope over the front guy pin (fig. 99). Both men then proceed to the rear of their tent. The even numbered man adjusts his pole and guy rope as previously described, while the odd numbered man pins the rear tent corners and drives the rear guy pin, adjusts the rear guy rope, buttons the triangular ends together, and pins the rear triangle. The even numbered man drives the remaining pins on the right, and the odd numbered man drives them on the left (fig. 100). (A tool with a flat head such as a hammer or hand axe should be used to drive tent pegs. However, if such a tool is not available, a brick or rock may be used for this purpose.)

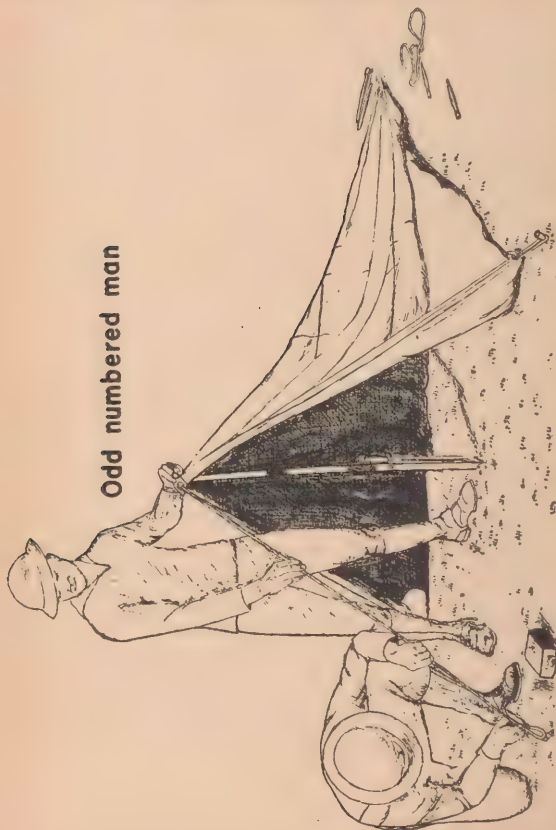
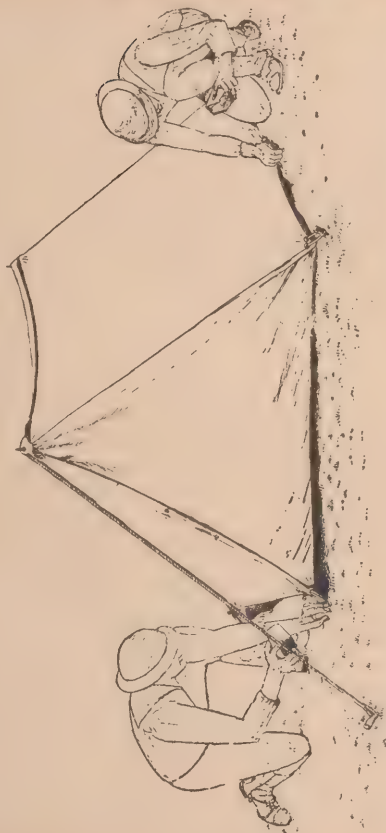
**Even numbered man**

FIGURE 99.—Pitching shelter tent, front end. (L. F. M., U. S. Navy.)



**Odd numbered man**

**Even numbered man**

FIGURE 100.—Pitching shelter tent, rear end. (L. F. M., U. S. Navy.)

**9-5. INSPECTION OF TENTS AND EQUIPMENT.** (a) After tents are pitched, and when directed to lay out equipment for inspection, each man arranges the contents of his pack in front of his own half of the tent in the prescribed manner. After the equipment is laid out, the organization commander commands: **PREPARE FOR INSPECTION.** At this command each man stands at attention by the side of his own shelter half, toes on line with the front corner tent pins. The commander then inspects the tents and equipment.

(b) Laying out of equipment may be dispensed with.

**9-6. SUPERVISION.** Platoon leaders supervise their platoons. They are responsible for an exact alignment of the poles and guy rope pins.

## **SECTION 2.—PITCHING DOUBLE SHELTER TENTS**

**9-7. PURPOSE.**—The purpose of this instruction is to establish the unit rapidly and correctly in a double tent camp, arranged in a neat and orderly manner. The double tent is preferable to the single tent in cold or inclement weather because it affords superior shelter. It is useful in restricted areas, because of its greater concentration of personnel. The double tent is composed of two single tents buttoned together at the square ends. The tent is supported by

three poles; one in the center and one at each end. Two guy ropes are attached to each end. Guy pins are in line with the side pins of the tent. Each set of fours (Nos. 1, 2, 3, and 4; Nos. 5, 6, 7, and 8, etc.) pitch and occupy one double tent.

9-8. FORMATION.—The same as for single tents in Section 1.

9-9. COMMANDS.—(a) 1. FORM FOR SHELTER TENTS TO THE LEFT (RIGHT), 2. MARCH. 3. DRESS RIGHT (LEFT), 4. DRESS. 5. READY, 6. FRONT, 7. COUNT OFF.

(b) PITCH DOUBLE TENTS.

9-10. EXECUTION.—(a) FORMING.—At the commands the movements are executed as for single tents given in Section 1.

(b) PITCHING DOUBLE TENTS.—(1) At the command PITCH DOUBLE TENTS, all men proceed as for single tents (see par. 9-4 (b)), except that only every fourth man (Nos. 1, 5, 9, etc.) marks the location for the front pole.

(2) After front pole locations have been made, all men spread their shelter halves on the ground to be occupied by their respective tents. Odd numbered men place their shelter halves with the triangles to the front; the even numbered men place theirs with the triangles to the rear.

(3) They button together the four shelter halves of each tent, the ridges first, then the square ends.

The odd numbers insert and support the front and rear poles, the front pole in the place previously marked, the rear pole in a line with it perpendicular to the line of front poles. The even numbers pin the front and rear corners of the tent. One even number then enters the tent with his pole and, assisted by the other even number, adjusts the pole to the center of the shelter halves. He inserts the top of the pole, in the following order, through the eyelets of the lower half of the front tent, the lower half of the rear tent, the upper half of the front tent, and the upper half of the rear tent. The even numbers then fasten the guy ropes and all drive the remaining pins and turn back the four triangular ends.

9-11. INSPECTION OF DOUBLE TENTS AND EQUIPMENT.—(a) After the double tents are pitched, and when directed to lay out equipment for inspection, each man arranges the contents of his pack in front of his own shelter half as prescribed in paragraph 9-5. (The double tent is open at both ends.) After the equipment is laid out, the organization commander commands: **PREPARE FOR INSPECTION.** At this command each man stands at attention by the side of his shelter half, facing outward, toes on line with the corner tent pins. The organi-

zation commander then inspects the tent and equipment.

(b) Laying out of equipment may be dispensed with.

### SECTION 3.—STRIKING SHELTER TENTS

9-12. To STRIKE TENTS.—(a) At the command STRIKE TENTS, the men remove their equipment from the tents, pull up pins, unbutton the halves, and make up their packs. They sling their equipment and stand at attention in the positions originally occupied after taking interval before the command PITCH TENTS. The unit is then assembled by appropriate command for the formation.

(b) When it is desired to strike tents simultaneously, The General is sounded as a signal for striking tents. They are prepared for striking by pulling up the pins but are held in an upright position by one man at each pole until the last note of the bugle, when all are caused to fall simultaneously to the right or as may be otherwise previously directed.

### SECTION 4.—MEDICAL TENTAGE

9-13. The tentage of a hospital company consists of hospital tents and appendages, pyramidal tents, wall tents, and storage tents, the number of each

depending upon the situation and/or authoritative allowance tables.

9-14. WALL AND HOSPITAL TENTS.—(a) PITCHING.—

1. *Preliminary arrangements.* The officer or petty officer in charge selects suitable ground. He indicates the direction in which the tents are to face, the line on which they are to be placed, and the position of the door pins. Four men are required to pitch each tent.

2. *Procedure for each tent.*—a. First a pin is driven to mark the center of the door. Then the tent is spread on the ground it is to occupy, the door loops being placed over the door pin. The front corners are drawn taut, aligned, and pegged down. The rear door is laced, if there is one, and the rear corners are drawn taut in both directions and pegged down. The four corner guy pins are then placed at points in prolongation of the diagonals of the tent and about two paces beyond the corner pins and driven in.

b. The front door is temporarily loosened, and the two corner loops on one side only are loosened from the corner pins. The ridge pole is inserted between the ventilation strip and the tent ridge. The upright eyelet pins are inserted in the ridge pole and in the eyelets of the tent, and the fly eyelets are placed over the end-pole eyelet pins. The tent is then raised and held in position, the two loosened corner



loops are replaced, and the corner and fly guy ropes secured and tightened to hold the poles vertical. The wall pins are driven in through the open loops as they hang. Finally, the intermediate guy pins are driven in in alignment with the corner guy pins.

(b) STRIKING.—The men first remove all pins except those of the four corner guy ropes. The pins are pulled and neatly placed in a receptacle. One man holds each corner guy rope and the tent is lowered. The poles are removed and fastened together, the tent is folded, and the remaining pins collected.

(c) FOLDING.—1. The tent is first spread on the ground and folded at the ridge so that the bottoms of the side walls are even, the ends of the tent forming triangles to the right and the left. The triangular ends of the tent are folded in towards the middle, so that the whole then forms a rectangle. The top is folded over about 9 inches and the tent then folded twice by carrying the top fold over to the foot and again from the top to the foot.

2. All guy ropes are thrown on the tent except the second from each end. The ends are folded in so as to cover about two-thirds of the second widths. The left end is then folded over to meet the turned-in edge of the right end; the right end then is folded over at the turned-in edge, and again folded over

the top to the left end, completing the bundle. Finally, the bundle is tied with the two exposed guy ropes.

9-15. PYRAMIDAL TENTS.—(a) PITCHING.—1. *Preliminary arrangements.*—The ground on which the tents are to be erected having been designated, the line of tents is marked by driving a wall pin on the spot to be occupied by the right front corner of each tent. The interval between adjacent marking pins should be 30 feet, which leaves a space of about 2 feet between tents. Each tent is usually erected by the men who will occupy it.

2. *Procedure for each tent.*—a. The tent is spread on the ground which it is to occupy, door to the front. The corners and the door are laced, and the right front wall loop is placed over the corner pin already driven.

b. The left corner wall loop is carried to the left as far as it will go, and a wall pin driven through it, in line with the right corner pins already driven.

c. The rear corner wall loops are pulled to the rear and outward, so that the bottom of the rear wall of the tent is stretched to a complete square. Wall pins are then driven through these loops. Each rear corner pin should be directly in the rear of its corresponding front corner pin, and with it form a line

perpendicular to the line of front pins to insure that the bottom of the tent forms a square.

*d.* Three men crawl under the tent and fit the pole into the rings, and such accessories as hood, fly, etc., are adjusted.

*e.* Steadied by one man at each corner guy rope, the tent is then raised by the man underneath.

*f.* The four corner guy ropes are then placed over the lower notches of large pins, which are driven in at points located on prolongations of the diagonals at such distances as to hold the walls and ends of the tent vertical and smooth when the guy ropes are drawn taut. At this point the corner poles are inserted by the men inside the tent.

*g.* A wall pin is then driven through each remaining loop, and a large pin for each guy rope is driven in in alignment with the four corner guy pins. The guy ropes of the tent are placed over the lower notches of the large pins and all ropes then drawn taut.

(*b*) **STRIKING.**—First, all pins except those of the four corner guy ropes and the rear corner wall pins are removed and placed in a receptacle. With one man holding each corner guy rope, the tent is then slowly lowered to the rear. The poles are fastened together and the remaining pins collected.

(c) FOLDING.—1. *Procedure for each tent.*—*a.* The tent having been lowered to the rear, the back wall and roof canvas are pulled out smooth. This is accomplished by leaving the rear corner wall pins in the ground with the loops attached, while one man at each corner guy rope, and one or two holding the ventilator-iron square perpendicular, pull the canvas to its limit away from the former front of the tent. This places the three remaining sides of the tent on top of the rear side, with the door side to the middle.

*b.* To straighten the side wall and roof canvas the right front corner is carried over and laid on the left front corner. All canvas is pulled smooth, the guy ropes thrown toward the ventilator-iron square, and the bottom edges pulled even. Then the right corner is returned to the right to cover the right rear corner. This folds the right side of the tent on itself, with a crease in the middle and under the front side of the tent.

*c.* Next, to straighten the left side wall and roof canvas, the left front corner is carried to the right and back in a similar fashion. This will leave the front and rear side of the tent lying smooth and flat and the two side walls folded inward, each on itself.

*d.* The ventilator-iron square is folded downward toward the bottom of the tent, and then the hood

is placed in the iron square. The tent is now folded around the iron square as a core, all folds being pressed down flat and smooth, and parallel to the bottom of the tent. If each fold is compactly made and the canvas is kept smooth, the last fold will exactly cover the lower edges of the canvas.

*e.* All exposed guys are laid along the folded canvas except the two on the center width. These two are pulled out and away from the bottom edge, to their extreme length so as to be used later for the final tying of the bundle.

*f.* From one end the bundle is folded toward the center hinging on the first seam; that is, the one adjoining the first and second widths. It is again folded toward the center, so that the canvas already folded will come within about 3 inches of the middle width. It is again folded to the opposite edge of the middle width of the canvas.

*g.* From the opposite end the first width is folded in half. A second fold comes about 4 or 5 inches from the part of the tent already folded from the first end. This second fold is then thrown entirely over the part already folded.

*h.* The exposed guys are drawn taut towards and across one another so that they are at right angles. The bundle is turned over on the guy rope which is

the prolongation of the tent seam. The guy ropes are crossed on the new top of the bundle. The bundle is turned over again on the crossed ropes and tied.

### SECTION 5—SHELTER

9-16. GENERAL.—(a) Good shelter contributes greatly to the maintenance of the efficiency of troops in the field. The underlying principle is to utilize and improve the best available facilities for shelter as far as is consistent with the situation.

(b) According to circumstances, troops are sheltered in *bivouac*, in *camps*, or *billets*.

1. Troops at rest are in *bivouac* when not provided with overhead cover or when covered by shelter tents or hastily improvised shelter. On marches or in the presence of the enemy, troops are frequently forced to bivouac, but in fine weather, in midsummer, or in the dry season in the tropics, they do so from choice. For tactical purposes, bivouacs are very convenient, but because of sanitary reasons they are resorted to, except for overnight halts, only when necessary. The general principles governing the selection of camp sites apply to bivouacs.

2. Troops are in *camp* when sheltered by tentage other than shelter tents or when quartered in canton-

ments; that is, huts or other temporary structures especially constructed for military purposes.

3. Troops are in *billets* when they occupy private or public buildings not especially designed for military purposes. Billets afford excellent shelter and permit the screening of troops from aerial observation; they have, moreover, the advantage of offering shelter in an immediately available form which does not require an expenditure of labor or material. Billets do not, however, favor a high degree of readiness for action, and the tactical situation usually renders their use inadvisable in close proximity to the enemy. The danger of the transmission of disease inherent in billeting requires careful inspections and strict enforcement of sanitary rules. Billeting in the United States and its possessions is limited by an amendment to the Constitution which provides that "No soldier shall, in time of peace, be quartered in any house without the consent of the owner; nor in time of war, but in a manner to be prescribed by law." Use may be made of public buildings when available, or private buildings may be rented. Families are not removed from their dwellings when it can be avoided.

9-17. SELECTION OF A CAMP SITE.—(a) In ample time before the end of a day's march a line officer, a medical officer, and a supply officer should ride for-

ward and select a camp site, unless one has been previously arranged. It is difficult to locate an ideal camp site which is entirely satisfactory from a sanitary viewpoint. In time of war tactical considerations have priority over local conditions.

*(b) Points to be considered in determining the location of a camp.—*

FAVORABLE CONSIDERATIONS	UNFAVORABLE CONSIDERATIONS
1. Accessibility to good water, fuel, and forage.	1. Sites occupied within 2 months by other units.
2. Sandy, loam, or gravel soil.	2. Clay, alluvial, or dusty soil.
3. Elevated site, well drained.	3. Dry river bed, ravine, and base of hill, if there is a likelihood of rain.
4. Shade trees, in warm weather.	4. Proximity to marshes, swamps, and mosquito-breeding areas.
5. Hills and forests as wind-breaks in cold weather.	5. Steep slopes.
6. Should be large enough to accommodate the command.	6. Sites where the ground water is near the surface.
7. Grass-covered location.	7. Proximity to native habitations especially in malarial regions.
8. Accessible to good roads.	8. Inaccessible; poor roads or none in the vicinity.

9-18. ESTABLISHING THE CAMP.—(a) The following provisions will be made for shelter:

1. Establish the outpost if necessary.



2. Establish the interior guard if necessary.
3. Post guards to enforce proper use of the water supply.

4. Set up kitchen.

5. Furnish details to pitch hospital, headquarters, and officers' tents; procure fuel, water, forage, etc.; and prepare latrine and kitchen pits.

6. Troops pitch tents of enlisted personnel.

(b) Details for the foregoing should be made prior to arrival at the camp site, preferably before starting the march, so as to avoid confusion, insure order, and save time.

(c) Ditch the tents as soon as put up, even if camp is only for one night. A little rain may spoil a whole night's rest.

(d) Insure proper ventilation of quarters, especially at night. Bedding should be aired twice a week. Tent walls should be rolled daily and the tents furled once a week, weather permitting.

(e) See that cooking is carried out in as sanitary a manner as possible and that the food is protected from dirt and flies, both before and after cooking. Have food products whose condition is doubtful, inspected by a medical officer before being used.

(f) Observe the regulations governing physical inspections and the inspection of food handlers and barbers.

(g) Keep garbage receptacles covered. If fuel is available, construct an incinerator for the destruction of kitchen waste. An undue number of flies in camp is a reflection on the company officers.

(h) See that the camp is policed daily after breakfast and all refuse matter burned.

## APPENDIX

### LIFESAVING METHODS

#### *General.*

1. (a) The rescue of drowning persons and the resuscitation of the apparently drowned are of particular importance to all personnel, especially those engaged in landing-force operations.

(b) The rescue of a drowning person should never be attempted by swimming if safer means are available.

(c) Rescues of the apparently drowned usually are accomplished in the following ways: (1) From shore by wading; (2) By boat; and (3) By swimming.

(d) The danger of fatal submersion, as far as the landing force is concerned is, for the most part, limited to the ship-to-shore movement. It may occur during embarkation, by the sinking of boats by gunfire, or by loss of control and overturning of boats as they hit the beach. The securing of a lee for the boats and the use of cargo nets will largely eliminate embarkation hazards. Lifeboats detailed to accompany the boat convoy provide for rescue of personnel en route to the beach. Persons thrown into the water by boats being overturned as they reach the shore are normally rescued from shore by wading. In this last contingency, the primary

danger is in being trapped or crushed by the boat and drowned, unless immediate aid, including resuscitation, is immediately forthcoming.

*Resuscitation.*

2. WHEN THE VICTIM IS BROUGHT ASHORE STILL BREATHING AND CONSCIOUS. — (a) *Do not allow the victim to walk or even to stand unsupported.* Additional effort may bring on a collapse due to the physical and mental state caused by fear and extremely violent exertion.

(b) *Never apply artificial respiration while the victim is still breathing* unless it is apparent that respiration is about to cease; therefore the rescuer should observe the victim at all times in readiness to use artificial respiration.

(c) **ARTIFICIAL RESPIRATION.**—Whether the victim has ceased to breathe as a result of drowning, asphyxia, other forms of suffocation, or electric shock, the technique of artificial respiration is the same and is as follows:

(1) Lay the patient on his stomach, one arm extended directly overhead, the other arm bent at elbow and with face turned outward and resting on hand or forearm, so that the nose and mouth are free for breathing (fig. 101).

(2) Kneel astride of one or of both of the patient's thighs, facing towards the head, and with the knees

placed at such a distance from the hip bones as will allow assumption of the position illustrated in figure 101. If only one thigh is straddled it should be the one on the side towards which the patient's face is turned so that his face can be easily observed.

(3) Place the palms of the hands on the small of the back with fingers resting on the ribs, the little fingers just touching the lowest ribs, with the thumbs and fingers in a natural position, and the tips of the fingers just out of sight.

(4) With arms held straight, swing forward slowly, so that the weight of the body is gradually brought to bear upon the patient. The shoulder should be directly over the heel of the hand at the end of the forward swing. Do not bend the elbows (fig. 102). This operation should take about 2 seconds.

(5) Now suddenly swing backward, so as to remove the pressure completely (fig. 103).

(6) After 2 seconds, swing forward again. Repeat the double movement of compression and release deliberately 12 to 15 times a minute, a complete respiration in 4 or 5 seconds.

(7) Continue artificial respiration without interruption until natural breathing is restored; if necessary, 4 hours or longer, or until a medical officer declares the patient is dead.

(8) As soon as artificial respiration has been started and while it is being continued, have an assistant



FIGURE 101.—Artificial respiration, ready to apply pressure.



FIGURE 102.---Artificial respiration, pressure applied.



FIGURE 103.—Artificial respiration, pressure released.



loosen any tight clothing about the patient's neck, chest, or waist. Keep the patient warm. Do not give any liquids whatever by mouth until patient is fully conscious.

(9) To avoid strain on the heart when the patient revives, he should be kept lying down and not allowed to stand or sit up. If a medical officer has not arrived by the time the patient has revived, the patient should be given some stimulant, such as one teaspoonful of aromatic spirit of ammonia in a small glass of water or a drink of hot coffee or tea, etc. Continue to keep the patient warm.

(10) Artificial respiration should be carried on at the nearest possible point to where the patient received his injuries. He should not be moved from this point until he is breathing normally of his own volition and then moved only in a lying position. Should it be necessary, due to extreme weather conditions, etc., to move the patient before he is breathing normally, artificial respiration should be carried on while he is being moved.

(11) A brief return of natural respiration is not a certain indication for stopping artificial respiration. Not infrequently the patient, after a temporary recovery of respiration, stops breathing again. The patient must be watched and artificial respiration resumed at once if natural breathing stops.

(12) In carrying out artificial respiration it may be necessary to change the operator. Such change must be made without losing the rhythm of respiration. By this procedure no confusion results at the time of change of operator and regular rhythm is kept up.

(d) SUPPLEMENTARY TREATMENT.—While carrying on artificial respiration, organize helpers but do not stop artificial respiration. Send for a physician, blankets, hot water bottles or heated bricks, hot water or tea or coffee for stimulants (no alcoholics). Have patient's clothing loosened around neck and chest; mouth and nose cleared of any mucus or mud, and tongue moved back and forth occasionally to stimulate reflexes; body and limbs rubbed toward the heart. Have blankets and hot water bottles applied, but do not apply hot articles next to patient's skin. Place aromatic spirit of ammonia near patient's nose. Prevent a crowd from closing in, so as to give the patient plenty of air. Select an intelligent helper to watch you and so instruct him that he may be able to take your place when you need a relief.

*Instruction in artificial respiration.*

3. All men at Hospital Corps Schools and hospital corpsmen in the lower ratings should be instructed frequently in giving artificial respiration.

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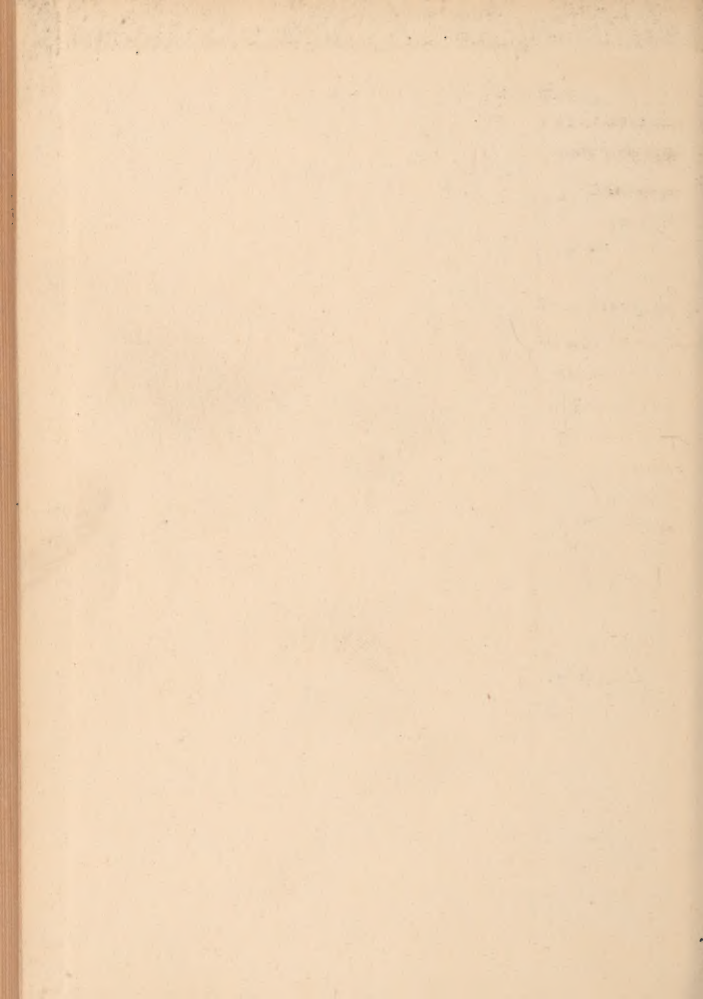


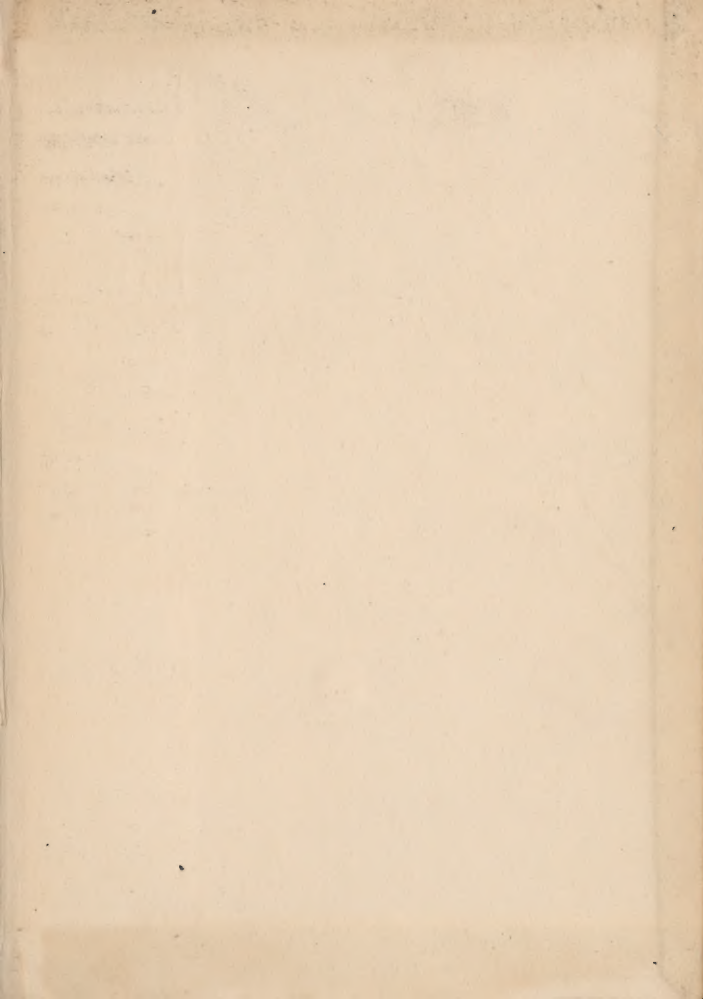












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